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THE MICHIGAN SCHOOLMASTERS' CLUB

FIRST MEETING

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57

PAPERS.

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VI. Secondary Instruction in English.—A Symposium. Prof. C. H. Cole, Leroy Halsey, and H. R. Pattengill.

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OBSERVATIONS UPON METHODS IN TEACHING MODERN LANGUAGES.

A PAPER READ AT THE FIRST MEETING OF THE MICHIGAN SCHOOLMASTERS' CLUB, BY PROF. CALVIN THOMAS, OF THE UNIVERSITY OF MICHIGAN.

It is a very common practice and one, I believe, which is commended by writers upon rhetoric, to begin the treatment of one's subject with some remarks upon the importance of the subject. I, however, will venture upon a different kind of exordium by expressing the opinion that my subject is not of much importance; or at any rate, that it is not half so momentous as a great many people suppose it to be. I have a conviction which has been strengthening for some time, that the subject of method in teaching receives in general more attention than it deserves. I think it probable, nay to my mind it is certain, that a good deal of the teaching that goes on in this country is suffering severely because of laying too much stress upon matters of method. Quite a large portion of the teaching fraternity are making of method, if not a fetish to worship, at least a hobby to ride—and that to the detriment of the country's highest pedagogical interests. If I can trust my own observation, a person's reverence for what is commonly called method usually varies inversely with his own intellectual breadth.

Let these remarks of mine not be misunderstood. There is a sense in which a teacher's method is the most important thing about him, is, in fact, the essential source of his power and his influence. His method in this sense is nothing less than his entire character displaying itself in his work. It designates not so much a mode of procedure for accomplishing a particular piece of work as rather the spirit which informs and directs all his work. In other words it is the working expression of his personality, his general way of imparting his own intellectual life to his pupil. But the word method is much more commonly used as synonymous with routine. It has reference to the details of procedure and is a name, not for the incommunicable secret of personality, but for the easily divulged secret of machinery. Now it is method in this latter sense that I think receives more respect and more attention than it deserves. I am aware, of course, that it is not easy always to keep these two senses rigidly apart in one's mind and to respect method in the former sense while thinking but indifferently of it in the latter. One's routine may be intimately bound up with his personality, but it need not be so and usually it is not so. Nor do I say that matters of routine are never of any moment. There may be circumstances in which it is highly important to decide between the comparative merits of two or more processes for accomplishing a given result. What I deprecate is the wide-spread tendency I observe to treat routine as if that were the thing of chief importance; as if it were the real key to a teacher's power and usefulness. For that it certainly is not. There are always two other questions upon which more depends than upon this question of, How? These are the questions, What? and Why? Let the teacher put to himself the inquiries: What knowledge or capacity is it that I am seeking to impart? and to what end? Let him settle these clearly in his own mind and then the question, How best to teach? will usually take care of itself. At any rate it will no longer seem a difficult or bewildering problem.

Having now defined my position with regard to method in general, I turn to the subject of Modern Languages for the purpose of illustrating, amplifying, and perhaps here

and there qualifying, the views already set forth.

In recent years the public has heard a great deal about a so-called natural method in the teaching of languages. This method is really nothing new in the history of the world; it has been known and used for centuries. But it has acquired great notoriety in this country of late on account of the vigorous crusade its votaries have been carrying on against the traditional practice of the schools. What this traditional practice is, is of course well enough known. A pupil who is to study, let us say German, is first required to commit to memory the grammatical inflections of the language. For the purpose of aiding his memory in the retention of the grammatical forms and also for the purpose of giving him the beginnings of a vocabulary, he reads as he goes along, a certain number of easy German exercises, and likewise translates a number of easy English exercises into German. All of this study is essentially grammatical. The learner then takes up some German reader, with which he works for a few weeks or months, as the case may be, the aim being to fix thoroughly in his mind the elementary principles of the language whose grammar he has been studying. After this he takes up the study of literature and his goal is henceforth simply to learn to read German as readily and as intelligently as possible.

Now a few years ago we bgan to hear from certain quarters that all this is wrong; that a pupil should learn a foreign tongue just as he learned his mother-tongue in his infancy; that is, by at once beginning to hear it spoken and to imitate what he hears. We are told that the initial study of grammar is unnatural, since the child hears nothing of the grammar of his own language until after he has learned to speak the said language, and to speak it mayhap, with commendable correctness. From this the corollary naturally follows that the teacher's chief effort should be to see to it that his pupil shall of all things learn to speak the language he is studying. The originators of this agitation were in the main very excellent teachers who would have succeeded with any method. As it was, having secured good results of a certain kind, they began to think the magic was in the method rather than in themselves. They were able to secure striking testimonials from distinguished persons as to their success in teaching pupils to speak, and so they started an agitation. And the agitation has grown. Its promoters have multiplied and spread abroad through the land. They are busily writing articles, essays, prefaces, in praise of their doctrine. To a certain extent they have got the ear of the public, which is usually ready to listen to any one that comes talking majestically about "modern ways" of doing things and winking his eye and biting his thumb at the expense of the old fogies. Many of these energetic reformers use very positive language. They tell us in effect that a notable educational conflict has been going on which has now, however, been decided in their favor. They claim to have carried through a great reform and do not hesitate to assure the public that any one who in these days continues to teach a modern language in the old way, is behind the age. Out of much literature in this vein which is continually falling under my eye I will quote only the following, from the preface to Deutsch's German Reader, lately published by D. C. Heath & Co.:

"It is now conceded by most teachers," says Herr Deutsch, "that, in learning any modern language, little is gained by beginning with the study of the grammar, and that the most successful method is the natural one, by which a child learns to speak its own language, *i. e.* by constant practice in conversation. A mass of grammatical rules and forms at the outset renders the subject dry and uninteresting, and the time so spent can be much more profitably employed in colloquial exercises, which are absolutely necessary in acquiring fluency of speech, no matter how thoroughly the rules of grammar have been mastered."

Surely it is trifling with serious matters to say of such a statement as this that it is important if true. If true, it is, in the light of what is now actually going on in the great majority of American schools and colleges, enough to take one's breath away.

What, then, are the merits of this position? What are the general merits of this contro-

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versy so far as there is any controvery? (The quarrel is after all a very one-sided one.) This is a question which, as I surmise, must be of especial interest to persons who may have found it necessary or convenient to undertake to teach a modern language before having attained to a very wide or deep scholarship in the language, and before they have formed through personal experience an independent judgment with regard to the matter under consideration. Such persons may well wish to know how a conservative teacher can go on his way and live and labor unabashed in the face of all these breezy proclamations like the one quoted.

Well, I have something to say on that subject, but before proceeding to say it, I desire to remark incidentally that Herr Deutsch's statement is very far from being true. What he says is: "*It is now conceded by most teachers*, that in learning any modern language, little is gained by beginning with the study of the grammar." To be true the statement should run: "It is now conceded, and for that matter always has been conceded by most teachers, that with pupils of a certain kind and for the attainment of certain results, little is gained by beginning with the study of the grammar." Or to speak more explicitly: all teachers are agreed that if you wish to teach any one to speak a language, the learner must be given practice in speaking. The sooner you begin and the more practice you offer the better. But this is not an admission wrung but yesterday from the teaching profession by the successes of the natural method. Nobody, so far as I know, ever held or advocated any other opinion.

Then as to that other observation that a "mass of grammatical rules and forms at the outset renders the subject dry and uninteresting," when shall we hear the end of such nonsense? When shall we see the end of this wretched desire to make all things soft and sweet for the youths and maidens of this generation? Grammar deals with the facts and the laws of language, and language is the most important of all human institutions. Whatever interest, whatever charm attaches to the study of any historical science ought to attach to the study of language. The facts of grammar are as interesting as any other facts and the laws of grammar are as interesting as other laws. It was doubtless unfortunate to subordinate sense, poetry, philosophy, history—everything to grammar, as was done by a good many teachers, especially of the Greek and Latin, a few years ago. There are better uses for the masterpieces of literature than to be made so many vehicles for teaching grammar. But on the other hand it is equally pernicious to speak of grammar and to treat it as if it were some miasma from which the dear boys and girls must be tenderly shielded just as far as possible. Let them learn the grammar and learn it well. It will be good for them. If the teacher has the instincts of a scholar himself the facts of language will not seem dull or uninteresting to him; and if they do not seem so to him he will usually contrive that they shall not seem so to his pupil. But suppose that they do seem so. Or rather: Suppose the learner occasionally has a sensation that he is working? What of it? There are worse things in the world than that. He is supposed to be preparing in school for life, and when he gets out of school the Genius of Life will admonish him at every turn that valuable acquisitions have to be worked for. He may as well learn early to face this simple doctrine and to make the best of it. It is no part of the teacher's business to make things easy at the expense of thoroughness. It is a mistake if he thinks that the real and lasting regard of his pupil can be won in that way. Healthy boys and girls, and young men and young women in school and college do not want an easy time. They wish for work to do and they enjoy work. It is not their desire to float down the stream with a soft-hearted pedagogue to keep them clear of all the difficulties and asperities of navigation. They prefer to paddle, and if the course lies up the stream against a tolerably stiff current they like it all the better. In the high-school they may talk freely about the sweets of idleness and may at times seem to be rather fertile in precautions against over-exertion. So the college student will often profess to have a lively affinity for what he calls a "soft snap." But this is simply a

conventional student dialect—a surface indication, which belies what is underneath. The truth is that the vast majority of students in both school and college prefer to be kept busy, and they have, both in the long run and in the short run, the greatest respect for the teacher who gives them work to do, insists upon their doing it, and does not seem over anxious to make things easy. *Res severa verum gaudium* is the true student motto the world over.

I am of course not saying that of two ways for accomplishing a given end the more difficult and laborious is to be chosen on the ground that students after all like to work and that work is good for them. By no means. There are always subjects enough to learn which will tax one's strength all that it ought to be taxed. It is therefore always a proper and wise economy to select the easiest way of attaining any given result. What I am arguing is that when a line of work has once proved its usefulness, it is not to be discarded and spoken ill of simply because the learner finds it difficult or "dry." The road which he thinks dry and difficult may be precisely the best road for him to travel.

I come now to the application of the thought expressed some time ago, which was in effect, that any controversy concerning method in teaching will usually be found to have underlying it a more important question as to what should be taught. This is certainly true in the case before us. The issue between the advocates of the natural method and those, who use the other method does not turn upon the comparative merits of two ways for accomplishing the same purpose; it turns upon the comparitive merits of two different purposes to be accomplished.

The alternative is simply this: Is it best in teaching a modern language to make it our chief aim that the learner shall acquire some ability to speak the language, or shall we make it our chief business to teach him to read the language with some scientific understanding of it? If one accepts the former as the true ideal of school and college instruction, then it is very certain that the natural method, or any modification of it which affords the utmost possible practice in speaking, is the best method. If, on the other hand, one accepts the latter as the true ideal, then it is equally certain that the other method is the better.

What, then, is the true ideal? What ought we to aim at in the teaching of a modern language? Or rather what ought we to aim at in the teaching of a modern language in school and college? This limitation of the question is of importance since the circumstances under which we are compelled to work in school and college may very possibly exercise a determining influence upon us when we are attempting to decide the questions what to aim at and how to go to work. For example: I might, and very certainly I should proceed in one way with a large class of University students whom I expected to meet four times a week, and in quite another way with a child who was to live with me for several years in my own family; and in still another way with a class of three or four whom I expected to be with me for several hours each day. We must look at this question with reference to the circumstances that are, and forever must be, imposed upon us in school and college. German, for example, is not begun by our pupils in their early childhood, nor can the study be kept up for ten or twelve years. In the present crowded state of our school and collegiate courses such a thing is out of the question and it must forever remain out of the question unless it can be shown that some great, some very great advantage, would result from it. In my opinion no such showing will ever be made. I admit, of course, that if all persons who studied German in our public schools were to begin the study in childhood, and to begin it with the expectation of keeping it up through a long succession of years, then certain questions might arise with regard to the teaching of the language which are not now living questions at all. I, however, am very far from thinking that such an innovation would be desirable. So that I can claim to be discussing this subject here not simply from the standpoint of what is and what is likely to continue to be, but also from the standpoint of what ought to be.

Upon hearing this inquiry: What should

be our aim in the teaching of German? many persons, particularly those who are themselves unschooled, will be inclined to answer at once: Why, it should be your aim to impart to your pupil a complete mastery of the language, so that he can read, write, and speak it; can even think in it, or crack jokes and write verses in it. But those who have done some work upon a foreign language, and especially those who have tried to teach one, will understand at once that a program of this sort would be simply what Mr. Tilden called a "barren ideality." It is of no use to hitch our wagon to a star in that fashion. To learn to speak any language in any decent manner, demands long and assiduous practice in speaking. To learn to speak it at all well demands long association with those who speak it as their native tongue. And this requires time. To learn to read a language again requires long practice in reading. One must have read a large number of books from different periods of the language. He must have acquired some first hand familiarity with its literature. And this again requires time. We have here two different disciplines. Now if in our school work one of these disciplines is accented the other must be neglected. There is simply no other way, without involving a very much greater expenditure of time than we now make. Which, then, shall we accent?

Among the great unschooled public the ability, real or apparent, to speak a foreign language undoubtedly counts as a great thing. They look upon such ability as the natural and necessary outcome of linguistic study. Parents covet the accomplishment for their children. For a long time a little French was a necessary item in the intellectual outfit of a fashionable young lady. All over the country multitudes of boys and girls are trying to learn to speak German, and that without reference to any particular use they expect to make of the acquisition, but from the general impression that it's a good thing to do. Very intelligent people are now and then found crying out that it is a disgrace that students should pursue the study of German four or five years and then not be able to speak it. As if that and that only were the true criterion by which to decide whether the student has got any good from the study.

Well, now let us inquire what is the precise value, for average graduates of our schools and colleges, of the ability to speak a foreign language? I say average graduates, since it is obviously with reference to them that we must shape our courses of study and our methods of teaching. We can not shape these with reference to the occasional student who might wish to prepare for a residence in Germany or for a position as German clerk in a business house.

Whatever value the ability to speak a foreign language may have for average graduates ought to be found, I should say, along one of two lines. Its value ought to be either practical or educational. I am aware of no other lines of importance along which its value ought reasonably to be sought. The word "practical" I use here in the manner of the world's people as synonymous with commercial. That is, to be sure, a very vicious use of the word. I would not for a moment admit that, even if a much better case could be made out than can be for the commercial value of the ability to speak a foreign language, that, therefore, we should make the imparting of such ability the chief aim of our teaching in the schools. We can not throw too often or too hard in the face of the public the fact that our business is educational. Our work is the building up and the leading out of minds, and not the teaching of crafts, trades, tricks, and techniques to get a living with. Whatever has a high educational value has a high *practical* value, since nothing is of more practical moment than the training of minds. But using the dialect of the age, what is to be said of the practical, *i. e.*, commercial, value of the ability to speak a foreign tongue? This is a matter about which I imagine that a good deal of loose thinking and talking prevail which have given rise to misapprehension.

It is of course true that the command of two languages has, for one who is seeking a position in a community where there is a large foreign population, a real commercial value. To deny this would be absurd. Professional and business men are continually saying in our hearing: "I'd give $1,000 if I

could speak German." The boy or the girl who desires employment in a city like this or like Detroit, undoubtedly has an advantage if able to speak German. But what kind of ability is it that is meant in such cases? A smattering of the language will not suffice. It is not enough that the applicant should be able to say: Good morning! and How do you do? and What time is it? It will not suffice if even he have at his tongue's end the whole wisdom of Ollendorf and be able to say ever so glibly that the wife of the butcher is more handsome than the nephew of the baker. But he must be able to *speak German;* not as school children use that phrase, not as it is used by the professors in Summer Schools of Languages, but as men of business and of the world understand it. He must have, at least for all the purposes of the position that he seeks, a fluent and ready command of the language.

But cannot this superior grade of ability be imparted in the schools? Practically it can not. It is indeed true that if any competent teacher were to take a very small class of boys, all of whom wished to become German clerks in a dry goods store, and if he were to meet them every day for an hour and talk nothing but dry goods store to them for a matter of two or three years, he might thus contrive to give them an indifferent preparation for entrance upon the duties of German clerk in a dry goods store. But their preparation would be none of the best. They could get a much better one and that, too, in less time, by means of an apprenticeship, or by living in a German family. And then the time has not come for managing our educational institutions on that principle.

But perhaps it may be asked whether it is not possible by means of general conversational instruction and practice in the schools to impart such command of the German language for all purposes, that the learner upon leaving school can fill any position, where a knowledge of German is required. In answer to that question it must be said emphatically that it is not possible. The conditions of the school forbid. The teacher meets his pupils in classes (and these classes are often large), five hours or less each week of the school year. Each pupil has a few minutes' practice on certain days of the week in speaking German. All the rest of the time, with his teacher, his schoolmates, his parents at home, he speaks English. Now no one can learn to speak a foreign language in that way. To do that requires months or even years of constant practice through association with those who speak the language as their mother tongue. You can no more teach a person to speak a foreign language by means of class instruction given at stated intervals than you can teach him to swim by giving courses of illustrated lectures in a 7 by 9 bath-room. The thing never has been done, never will be done by the natural method or by any other method; and any one who professes to be able to do it may be safely set down as a quack. I know very well that some rather striking results can be achieved in this direction. I have experimented with the matter myself and am familiar with the reports of those who have done much more and much better than I can claim to have done. It is possible by sedulous attention to the subject continued through a considerable period of time to teach a class to speak German in the class room with tolerable fluency and correctness. Any one not an expert listening to such a class easily gets the impression that they can readily handle the German language—can actually "speak German" in some proper sense of the term. But, alas, it is only the class room dialect that they speak. Their discourse moves in a very narrow range. They do but say over certain phrases, and sentences and idioms that they have heard and learned. Outside of this beaten round of expression which they never hear or need to use outside of the class room, they are perfectly helpless. On the street, at the store, in society, their German "conversation" leaves them in the lurch at once when they attempt to operate it. And so they take to using their costly acquisition of foreign speech simply for purposes of diversion. They say, "Wie befinden Sie sich," or "Comment vous portez-vous?" where they might just as well say, "How are you?" and make no further use of their accomplishment. The simple truth is that the attainable re-

sults in this direction of teaching students in the class room to speak a foreign language are so insignificant as to be utterly devoid of any practical value whatever, out in the world. And so there is no use in aiming at these results with reference to their commercial value, even if we were to admit the propriety of teaching subjects in school and college out of purely commercial considerations.

But what of the educational value of this acquisition? This is for us the really important question. I have spoken of its supposed commercial value only for the purpose of correcting what I deem a common misapprehension. I have tried to show that the smattering of conversational ability which the schools can impart, is worthless on the market, and conversely that the kind of ability which has a market value is beyond the reach of school training to impart. If we should attempt to impart it by quadrupling the time given to the study and by devoting all our energies to teaching conversation, we should even then be coming into hopeless competition with other easier and more expeditious methods of acquiring the same thing. One who especially desired to learn to speak German could learn it so much better by living a few months in a German family. Furthermore, in this country, wherever a foreign population is numerous enough to make a knowledge of two languages commercially valuable, there are always a multitude of boys and girls growing up who are bilingual from childhood. They are usually numerous enough to fill all positions where their particular capacity is specially required. Who would pass by them to take up with the imperfect, unsatisfactory product of the schools?

We must, therefore, it seems to me, admit that if the ability to speak a foreign language has any value that is within the reach of the schools, that value must be educational. How is it, then, with regard to this? There is a widespread impression that the ability to speak a foreign language is in itself an important evidence of culture. It would appear as if this impression ought to correct itself when one sees how very many people there are in the world who can speak two or more languages with some fluency and who are nevertheless without anything that can properly be called education. But the impression does not correct itself. People go on assuming that any person who can speak another tongue than his native one must have passed through a course of intellectual discipline proportionate in value to his fluency in speaking. In the minds of many—and even of many who ought to know better—fluency of speech is the only criterion by which to judge whether a course of study in a modern language has been profitable.

Now all this is very erroneous. The ability to speak a foreign language is a matter of practice, not of intellectual discipline. Proficiency in the accomplishment depends simply upon the opportunity one has had, and the use one has made of his opportunity, for practice. It is a trick, a craft, a technique, quite comparable with the ability to telegraph, or to write short-hand. It has in itself only a very slight and a very low educational value. Suppose that an English speaking boy some day learns at school that the German for "All men are mortal" is "Alle Menschen sind sterblich." What has he added to his intellectual outfit? Nothing at all. He has simply got hold of a new set of symbols by which to communicate, if necessary, an idea that was already in his mind. From an educational point of view his acquisition is of the same order as if he had learned to tick off the English words on a telegraph instrument, to write them in short-hand, or to set them in type in a printing office. But education deals with the getting of new ideas, with the enlargement of the mental horizon. The thought that I am here seeking to present finds a good illustration in the ease with which very young children learn to talk in a foreign language. If a member of this club, ignorant of German, were to go to Germany for a year's residence and to take with him his three-year-old son; and if then he were to engage a teacher for himself, and work hard for a year, making use of all the expedients which are usually resorted to for the purpose of learning to speak German, meanwhile letting his son play at liberty about the house and street, he would find at the end of the year that he himself would be able to speak German in a halting, imperfect, unidiomatic, humiliating sort of way, which would betray his foreign extraction at every word. The little four-year-old, on the other hand, would use the language, so far as he needed to use language at all, just like a native. The reverse of this depressing picture is that upon returning home the child would, at the end of a second year, completely have lost his acquisition, while the father's would have suffered but little. This furnishes us with the real argument against sending our children abroad or putting them in the charge of foreign governesses in order that they may learn to speak German and French in childhood. The accomplishment acquired with such ease by the little ones goes just as easily as it came when the opportunity for constant practice is withdrawn. The plan is a good one where the circumstances are such that one will have through life constant need and occasion to make use of the accomplishment acquired thus in infancy. Such circumstances exist in numerous European countries. For the graduates

of our schools and colleges, however, circumstances of that kind do not exist. Even if we could in the schools accomplish far more than we really can in the way of imparting conversational ability, it would still not be worth while to make that our chief aim, since we should be perfectly sure that in a few years after leaving school our graduates would lose through lack of practice the accomplishment so laboriously acquired. It is of course no objection to a study that the learner is going to forget it, provided that the study has in itself an educational value or lays a foundation upon which the learner can build further all through his after life. If he fails to build, that is his own fault and not that of his teacher or of his schooling. If he forgets what he knew after having once got an educational value out of it, what of it? Let him forget it His forgetting is no sign that his former study was thrown away. There is a good deal of nonsense talked and written on that subject. But if the thing learned is without educational value in itself, is an accomplishment, a technique of the fingers or of the vocal organs, then it is obviously a very grave objection to the teaching of it if we know that the learner will soon forget it through lack of practice. Who would think it good policy to go to the trouble and expense of teaching our students telegraphy or type setting if it were certain that nine-tenths of them would soon forget the acquisition through lack of practice?

I conclude, then, that the educational value of learning to speak a foreign language is of itself very small. There can, however, be no doubt that language study is one of the most potent educational instruments we know anything about. How is this? Where does this value lie if not in learning to speak the language? Why, it lies in learning to read it. It lies in the deepening and broadening of the mind that come from the introduction to a new literature. It lies in the gradual working of one's way into the intellectual life of another people. It lies in the gradual taking up into one's own being of what has been thought and felt by the greatest of other lands and of other days, Or, along another line, it lies in the scientific study of the language itself, in the consequent training of the reason, of the powers of observation, comparison, and synthesis; in short in the up-building and strengthening of the scientific intellect. There are hundreds of thousands of people in the world to-day who can not converse at all in German, in French, in Latin, or in Greek, and whose intellectual debt in one or all of these languages is nevertheless simply inestimable. For myself, I can say with perfect sincerity that I look upon my own ability to speak German simply as an accomplishment to which I attach no great importance. If such a thing were possible I would sell it for money and use the money to buy German books with; and it would not take an exorbitant price to buy it either. But on the other hand, what I have got from my ability to read German, that is, my debt to the German genius through the German language, I would no more part with than I would part with my memories of the past, my hopes for the future, or any other integral portion of my soul.

Such being my views with regard to language study and the source of its value, my views as to methods of teaching language will follow of themselves. The teaching of a modern or of an ancient language in school or college, should be thorough and scientific. It should have as its aim to acquaint the learner with and fix in his mind the fundamental facts of the language and to introduce him to its literature. In this way a foundation will be laid for an acquirement which the learner can go on perfecting and making more and more useful to himself through all his after life. He can be perfecting it not simply when he has a foreigner to talk with and to bore, but by himself in the privacy of home, wherever and whenever he can get a book to read. In the laying of this foundation a certain amount of colloquial practice is desirable. There are some things about a language that are needful to learn which can really be learned better and faster in this way than in any other. It is well to give some time to the memorizing of phrases, sentences, and idiomatic peculiarities, and to afford oral practice in the proper use of these. In no other way is a true feeling for the language, a proper *Sprachgefühl* to be acquired. But this work should not be a mere empirical imitation of the teacher or of the book. It should appeal to the learner's intellect as well as store his memory and discipline his vocal organs. Especially should it be treated not as itself the end of study but as a means to an end, that end being linguistic and literary scholarship.

Ann Arbor, April 30, 1886.

BIOLOGICAL TEACHING IN HIGH-SCHOOLS.

A PAPER READ BY MR. D. H. CAMPBELL, OF THE DETROIT HIGH-SCHOOL, AT THE FIRST MEETING OF THE MICHIGAN SCHOOLMASTERS' CLUB.

Considering the great advances made in the biological sciences within the last few years, and the important bearing of biology upon modern thought, it certainly seems as if these sciences ought to occupy a position in the ordinary school course in some degree commensurate with their importance. Besides this, biology fills a place in the curriculum that no other study can supply, in training the observing faculties in a way that no other study can do.

In view of these facts it will certainly not be superfluous to consider in what way practical biological work can be done in the high-school; for it is *practical* work of which I wish to speak here.

Unfortunately a very large number of biologists and botanists, although nominally biologists know practically nothing of biology, their sole aim being to amass collections of specimens, very often comprising only a small group of organisms, and then flattering themselves that they are masters of the science if they are able to classify the specimens in their collections, although they may be densely ignorant of their real affinities and structure.

Thus it has arisen that to the ordinary school-boy zoölogy means a long list of hard names and definitions, and botany the ability to analyze a flower, and to collect (or borrow) an herbarium of fifty or a hundred dried specimens. Of course exceptional cases are found where the student's natural tastes are too decided to be overcome, even by these obstacles, but it must be confessed that the ordinary courses in these sciences are anything but attractive to the great majority of students.

One very serious objection, however, must be offered to the ordinary methods of teaching, especially botany, and that is the very imperfect ideas in regard to structure obtained from the study of the higher forms alone. Instead of beginning with the lower forms and working up to the higher ones, the student is put to work at once on the most complex forms, and consequently, entirely ignorant of the essential points of structure, is able only to deal with the most superficial and obvious points of structure, even of the forms that he studies, while he remains totally ignorant of the lower forms whose study would have led him naturally up to the higher forms, and made perfectly plain much that is otherwise hopelessly perplexing.

Of course for a perfectly satisfactory study of these lower plants microscopes are necessary and microscopes cost money, but the same objections might be urged against the study of physics, where equally expensive apparatus is necessary.

At Mr. Hull's request, I have prepared the following account of the methods pursued by me in teaching zoölogy and botany in the Detroit high-school. These studies are pursued successive terms during the tenth year of the school course, the pupils ranging from sixteen to seventeen years of age, with a sprinkling of older students from the higher grades. The work is carried on for the most part in the same way in both subjects, and the object is to have each student acquire, as far as possible, an actual acquaintance with the forms that are studied. On account of the limited time that could be allowed for work, and the large number of students, considerable contriving was necessary before a satisfactory arrangement of the time at my disposal was arrived at.

Some of the classes begin with the botany,

others with zoölogy, according to the time at which they enter the tenth grade, in the spring or fall.

The preliminary work is the same in both courses and comprises a brief review of the essential parts in organic structure, *e. g* The structure of the cell, the peculiarities of organic bodies, resemblances and differences between plants and animals, etc. After the first week or two both sets of students pursue practically the same course.

We have at present ten microscopes that the students use. Each student is, as far as possible, given the use of a microscope two hours each week, and in order to do this each section is divided into two divisions which work with the instruments alternate days, the odd day, Monday, being usually devoted to an explanatory lecture of the work for the ensuing week.

A certain amount of text book work is arranged beforehand, and at the lecture this is gone over, such points as are necessary being further explained, and facts that seem important emphasized, as well as more or less new matter being given. An outline of the subject matter of the lecture is placed upon the blackboard, and this, as well as such drawings and diagrams as are made during the hour, are required to be copied in the students' note books with such notes as they may take during the hour. Much use is made of the blackboard during these lectures, in the way of drawings, as experience shows that new facts are taken in much more quickly thus than where an attempt is made to give the description without this aid.

Although the importance of some sort of classification is recognized and insisted upon, it is constantly kept before the student as a means and not as an end. In each of the more important groups one or more readily accessible types are studied in detail, choosing, of course, as far as possible, such as are typical of the group. The student is made familiar with this single form, its structure, development, and habits, and after this the group as a whole is discussed in its relation to other groups.

For example: My class in botany have recently finished the great division of subkingdom of plants known now as oösporiæ or oöphytes. There is at present a very common, and at the same time thoroughly typical form to be found in almost any pool of standing water, an alga of the genus *Vaucheria.* This plant was consequently taken as the type of the sub-kingdom and described in detail in the lecture The general appearance of the plant was first described, and specimens shown, and then the minute structure. The character of the cells; the cell-contents; various methods of reproduction, etc. After this the classification of the group was taken up, with the characteristics of each class, the student being ready to follow much better the points of resemblance and difference between them after the discussion of the form already studied.

The following day the first section of students is provided with specimens, such directions being given as may be necessary to guide them in their work. During the hour the student is expected to study the specimens given him, and to verify as far as possible the points of structure that have been described. Drawings are made showing these, and sometimes written notes, but as the time is short, I have usually insisted only on the drawings, as these, if properly executed, will usually show pretty much all there is to be seen, and enable one very quickly to tell whether or not the desired points have been brought out. No student is excused under any circumstances from making drawings, as I have found that nothing will make a student see things so well as the careful scrutiny required in making a good drawing. Of course, some of the drawings are very bad, but it is exceptional to find a student who cannot produce a recognizable drawing after a little practice, even if he has never had any training before, while many of the students do really very creditable work, although the time given them is so short.

After the first section of students is fairly at work, the other section is questioned upon the work that has been done by them at the work tables upon the previous day, as well as upon a certain amount of the text book that has been assigned as a lesson, and the notes taken upon the lecture at the be-

ginning of the week. While the section at the table has been receiving instructions in regard to the day's work, those who are to recite are generally sent to the blackboard to transfer to it the drawings made by them at the table, the preceding day, so that it is easy to see where mistakes have been made by any student in his observations. These drawings are usually completed by the time that the others are fairly at work, and the recitation can then proceed without any delay. The following day the sections change places, so that each student spends two hours each week in work with specimens, alternating with two hours of recitation. Each student at the table is visited once or twice during the course of the hour, when possible, and as the sections are made as small as possible, not exceeding ten in most cases, this takes but a short time, although it sometimes happens that even this time cannot be given, when it is all the more important that the drawings should be transferred to the blackboard the following day.

By following the above plan it is possible during the twenty weeks of each term to have each student study for himself types of the principal divisions of the plant and animal kingdom, and to familiarize himself with the principles of classification, as well as to acquire the habit of observing for himself and to some degree, at least, the power of describing to others what he has himself seen. If the student can only learn *how to study* in a rational way, the time spent will not be thrown away even if he forgets the name of every plant or animal that he may have studied.

The plan of work given above is carried on in precisely the same way in both botany and zoölogy for the greater part of the time, but in the study of the flowering plants on one hand, and the vertebrates on the other, a somewhat different plan had to be followed.

Owing to the impracticability of dissection of vertebrates by the students and the impossibility of procuring enough specimens of a single kind, the work in zoölogy during the latter part of the term is necessarily confined to a greater extent to recitations.

In botany, as it was deemed advisable to give some instruction in the analysis of the flowering plants, the recitation hour was principally occupied during the last five or six weeks in this exercise, so that any student who felt so inclined would be able to carry on the work by himself afterward.

One important feature of ordinary laboratory work has to be omitted, owing to the very short time allowed for recitations, namely the preparation of the specimens by the students. When I first undertook the work I endeavored to have each student prepare his own specimens for the microscope, but I soon found that more time was spent in cleaning the slides and mounting the specimens than could be at all afforded, as well as the specimens being as a rule very poorly done when completed, so after the first year this was abandoned, and ever since I have prepared the specimens myself each day. I found this especially necessary where sections had to be cut, as the ordinary student is utterly unable to do this without considerable practice, for which, of course, there is no time.

The slides for the microscopes are prepared before school, and when the members of the first class take their places each student takes out a microscope and puts it together, being supplied with the slide containing the specimens for the day's work.

At the close of the hour the slides are supplied with water, and with a little care the same slide will answer perfectly for five or six students in succession. In cases where sections of plant-tissues have to be cut this is done the day before at home, and the section kept in dilute alcohol until wanted. Thus a dozen or twenty sections will supply fifty or sixty students, so that the time necessary for the preparation of the material is after all very little, while the improvement in the quality of the specimens is enough to more than warrant this slight expenditure of time and trouble.

It may be of interest to know what amount of work is done by the students in these courses and what forms of life have been chosen for study.

The ground covered by the class in zoölogy is that given in Macalister's Zoölogy, some of the matter being omitted, *e. g.*,

much on insects; supplemented by complete descriptions of the structure of types of each sub-kingdom, and in some cases of more than one example. Packard's smaller Zoölogy is a much superior book, and I would recommend it in preference to Macalister, but at the time I took charge of the work, Packard was not yet out, and expecting to give up the work at the end of this year, I did not change last fall, as I should certainly have done had I expected to remain.

The following animals were selected last fall: Protozoa, amœba, various forms of shelled rhizopods, *infusoria of various kinds. Porifera, fresh water sponge, spicules of various silicious sponges.

Cœlenterates. *Hydra fusca*, white coral, surtularian hydroids.

Echinoderms. Star-fish, sea urchins.

Vermes. Rotifers, paste-worms, earth-worms.

Molluscs. Common salt water clam, shells of various kinds.

Arthropoda. Grasshopper and some other insects.

Vertebrates. Perch.

In all cases except the clams and perch, which were dissected before the class, but not by them, the specimens were studied by the students themselves, the animals being for the most part living, though such forms as the star-fish and other marine animals could only be studied from dried specimens. Most of the specimens were provided by myself, but such common forms as the earth-worm and grasshopper were required to be supplied by the students themselves. Specimens were provided to illustrate the more important groups of vertebrates, but beyond a few days' work with birds, in which stuffed specimens were used, the work was mainly recitation on the part of the student for the last two or three weeks. During the earlier part of the work on vertebrates the laboratory work consisted of a study of bones, scales, feathers, and other skeletal parts. The study of the higher animal tissues is entirely out of the question in such a brief course, owing to the difficulty of properly preparing and mounting them.

*Vorticella-paramecium, other infusoria.

In botany Bessey's smaller botany has been used very satisfactorily. It is recent and embodies the principles of the science in a compact and intelligible form. There are respects in which it might be improved, but it is by far the best book with which I am acquainted as an introduction to general botany.

The first five weeks of the present term were spent in a study of the plant-cell and tissues. Here the following were among some of the plants used: Equisetum, potato, begonia, geranium, fern, etc. The various species of begonia I have found specially useful for the study of various tissues, as well as showing excellently the chlorophyll granules, and very beautiful specimens of crystals. They are easily procurable at all times of the year, a point that must be borne in mind when classes are started in mid-winter.

The classification of plants was begun the sixth week and will continue for the remainder of the term. The following amount of time will be given each group:

Protophyta — One week. The forms studied were *oscillaria*, *chroöcoccus*, *rivuluria*, *tolypothrix*, and in some cases *nostoc*, as well as occasional specimens of other forms.

Zygophyta—One week and a half. Examples: *Conferva*, various *zygnemaceæ*, desmids, diatoms, etc. Mostly fresh specimens but also some preserved specimens of desmids and fruiting specimens of spisogym.

Oophyta—One week and a half. Examples: *Vaucheria*, various species, mostly *V. geminata var. racemosa*, sterile and fertile specimens *Fucus*, and in one or two cases *Œdogonium*.

Carpophyta—Two weeks. Examples: Two or three red sea weeds, *polysiphonia*, and *ceramium*.

Blights—*Sphærotheca*, *uncinula*, etc. *Peziza*. Rusts.

Bryophyta—One week. Probably *madotheca* and some moss, *Mnium* or some other common species. Protonema and mature plant.

Pteridophyta—*Equisetum arvense* and more or less work with some fern.

The rest of the time, about six weeks, will be devoted to the flowering plants, whose tissues have already been studied to some

extent at the beginning of the term. The laboratory work consists of study of different parts of the plant, leaves, flowers, etc., with probably some more histological work, and the greater part of the time of the section not so engaged in analyzing such flower as may be brought in. In order that there may be a sufficient supply, each student is required to bring in once a week, enough flowers of one kind to supply each member of the section. In this way a sufficient number has usually been provided for this sort of work. No herbarium is required nor the analysis of plants outside of school. Of course a student does not thus gain the same facility in analysis as one who has made this the principal work of the term, but any student of ordinary ability can become sufficiently familiar with the methods pursued to carry on the work by himself if so inclined. From twenty-five to thirty plants are usually analyzed during the time devoted to this work.

It may be urged that only persons specially trained can carry on this sort of work. Very good. The University now offers a course in biology, any graduate of which is fully competent to take charge of such work, and if it is known there is a demand for such teachers they will be very soon forthcoming. But it is not necessary that one should have a course of this kind in college; although it would be much better if he could, but any one who is competent to teach these sciences at all, can with the aid of such works as Packard's larger zoölogy, Brooks's handbook of invertebrate zoölogy and Bessey's botany, acquire all the knowledge that is absolutely essential for such work.

Of course the greatest obstacle to be encountered in introducing such work would be the expense, but if the importance of the work can be impressed upon the persons concerned, I think this could be overcome. I have at present about one hundred twenty-five pupils, and by dividing these into six sections, the ten microscopes suffice, allowing each one two hours a week for work. These instruments cost almost twenty dollars each, eighteen for the first eight, if I remember correctly, nineteen for two purchased later. These, together with the cost of fitting up work tables, etc., brought the cost up to between $250 and $300.

Much of course can be done without microscopes, but even if these cannot be procured for the personal use of the students, one or two might be obtained which would be very useful in showing them specimens of the different forms that are too small to be studied without such aid.

I feel that I ought not to close this paper without an acknowledgment of the great assistance that I have received from the labors of my colleague, Miss Lyon. As far as possible, the same practical work is done in her classes in physiology, and the superior character of the work done is amply shown in the interest displayed by the students that come to me from her classes, and the intelligent way in which they are prepared to take up my work.

If people can be made to realize the real nature and scope of the biological sciences, the popular opinion in regard to them will soon be changed, which looks upon zoölogy and botany as pretty and ladylike accomplishments, very suitable for a young ladies' seminary, but utterly unfit for the practical curriculum that it regards as suitable for the common schools.

DOUGLAS H. CAMPBELL.

Detroit, May 6, 1886.

DISCUSSION.

Prof. Volney Spalding said: I feel proud to know that a Michigan high-school has accomplished such work on a plan which for a comparatively short time has been attempted at Harvard College. No one at all conversant with the subject will, for a moment, doubt the desirability of biological training. You who were taught the science of botany under the old plan will agree with me that observation was not trained at the same time that memory and reasoning were being trained. Observation is trained better in this study than in any other. The question will doubtless arise, "Is it practicable? Will school boards provide microscopes?" They may not now, but it is inevitable, and the study will be accorded a place. In the meantime, let us carry the same spirit into our botany

and zoölogy classes. Use observation first, and books last.

Prof. Delos Fall, of Albion, said: The paper has marked out almost exactly my line of work during the past year. The students have entered into it with a zeal which has been catching. Much can be done without a microscope, but each school can work up to one microscope. Get $80 to spend for one microscope, and then buy four $20 ones with it.

Mr. Hull, of Detroit, spoke of the eagerness with which pupils had taken up Mr. Campbell's work, and that many students not in the course had asked permission to study the subject.

PSYCHOLOGY IN HIGH-SCHOOLS FROM THE STANDPOINT OF THE COLLEGE.

A PAPER READ AT THE FIRST MEETING OF THE MICHIGAN SCHOOL-MASTERS' CLUB, BY DR JOHN DEWEY, OF THE UNIVERSITY OF MICHIGAN.

I have to confess at the outset that I have prepared this paper rather because I am interested in the subject than because I think myself to know anything about it. I am in need of information and am correspondingly glad to have the chance of exposing my ignorance. In fact, I am inclined to congratulate myself on the deficiencies of my own knowledge, as these may be the surest method of calling out the wider experience and better former judgments of others Having made this general confession, it remains only to make it specific by adding that not only have I never taught psychology in a high-school, but that I have never been as student or as teacher in a school where it is taught. I may lay claim to the impartiality born of ignorance, and the doctrinarianism bred of the lack of practice.

I do not wish, however, to carry my presumption too far; and accordingly I suggest that there may be two ways of looking at the educational value of my subject, since that subject has two functions; one direct and immediate, the other, remote. There is, in the first place, the precise and accurate training which the mind receives at the time of study, together with the information gathered. But there is also that training which puts the mind in an enlarged, yes, in a new attitude to all subjects with which it may thereafter come in contact, whether in the regulated discipline of college life, or in the more accidental and wider education of life. Of the first of these two functions I shall not attempt to say anything. The few things I shall say are upon the study of psychology from the standpoint of after-life. For the sake of convenience I shall put my remarks under the orthodox three heads of tradition, taking, however, no great pains to avoid over-lappings. First, Should psychology be taught in the high-school? Secondly, With what end in view should it be taught? Thirdly, How should it be taught?

To the first question, magnifying mine office, I return a dogmatic yes. Aside from the fact that if I did not my paper would have to end right here, the following considerations have weight with me. No one, I suppose, would contend that education is complete until the one educated knows something of that intellect which has been receiving the training; of those feelings which form the springs of his action, and of the will which has been exercising itself. No teacher, I am sure, would contend that this knowledge of one's own nature is exhausted in the study of physiology, for no teacher, whatever his theoretical views, has ever been a practical materialist. He comes into too close contact with the living personality for that. Indeed, I have often been struck with the way in which good teachers treat almost any psychological subject, a way likely to be more adequate than it receives at the hands of a professed psychologist. The reason I have always conceived to be that the teacher never loses sight of the concrete mind, the personal boy or girl; he recognizes that the laws and principles of the mental philosopher are abstractions, and does not allow them to make him forget the individual who is in and through them all. So I am sure that I can count upon the hearty sympathy of every teacher in laying considerable emphasis upon that knowledge of self which it is the business of psychology to give.

But why should systematic instruction in this line be given in the high-school? When the respective claims of languages, ancient and modern, mathematics and history,

science physical and biological, are driving distracted the much-enduring Ulysses, there should be hesitation in laying on more load. In answer I should say that this study is necessary to meet a demand which arises in the child's nature about this time No matter what one's views about the relations of body and soul, one knows that the average boy and girl undergo a mental as well as a physical revolution between the ages of say, 14 to 17 years. There comes to be at this time something like self-consciousness. In a certain sense, no doubt, this commences when the child calls himself I, but after all this generally means that the child recognizes himself as one object among many. His own *peculiar* individuality he does not become conscious of until he feels his relations to others, and this he does not do until his life finds its solidarity with that of the race. We may often be struck with the apparent selfishness, cruelty and heedlessness of children before this period, but we err unless we remember that this is of *nature*, rather than conscious. The child up to this time lives a natural life, a naive, objective one. With adolescence begins his subjective existence; the life which recognizes its own unique significance for itself, and begins dwelling upon its personal relations, intellectual and moral, and experimenting with them to get them adjusted in that way in which about the whole life of man consists. These are the beginnings of self-questioning; of introspection; of inquiries into the meaning of things, and of one's relation to them. Now it is a question of the widest pedagogic interest, what are we to do with this change in the child's nature? Shall we recognize it in any systematic way, or leave it to take care of itself? I do not mean for one moment to claim that the study of psychology is the all sufficient means of meeting it; but it does seem possible that directing the inquiries of the child at this time, instead of allowing them to drift, may be an immediate intellectual help as well as save much waste of mental and even moral force. But not only is psychology needed to meet the dawning self-consciousness of the student, but it is needed in order to balance the relations of studies. Before adolescence the pupil's mind does not, in the vast majority of cases, care for connection or relation. Isolated facts are enough. The child asks why, but any other fact does for the answer. After puberty, the isolated facts seem to shoot together. The child must have his facts threaded upon some principle. Now I must not be understood as suggesting that the study of psychology is the only or even the primary means of answering this want. Every subject the pupil studies should be treated in such a way as to answer this demand. But is there not something to be said for the view that the child should be led to see that these studies centre in his intelligence? It is of some importance, it must be of great value ultimately, that the pupil be made to know that in studying mathematics he is illustrating laws of his own reason; that in pursuing geology or botany he is exercising his own perceptive powers; that in history and the languages he is becoming acquainted with wills and intelligences like his own. Psychology ought to serve rather as a bond of union among studies than as a source of new discord. At all events, when a youth is studying everything in the world, from yeast to elephants and from bugs to Greek roots, it cannot be out of place to call his attention to the fact that he himself exists and is as worthy of study as any of these things.

And this suggests in the second place with what purpose the study of psychology should be carried on. It should be studied with a view to putting greater meaning into the rest of the curriculum. I should suggest this in connection especially with the studies of grammar, rhetoric and literature. Grammar is an exceedingly technical study. Its comprehension would ultimately lead us into the ranges of metaphysics, to say nothing of psychology. To the beginner it too often seems an arbitrary collection of meaningless rules. But even an elementary knowledge of the laws of the general notion and of judgment and the reasoning powers, would enable the pupil to see in grammar a reflection of his own intelligence, and I can but express my conviction that there is no more efficient way of verifying and rendering fruitful a study of English literature than to undertake it in connection

with the study of psychology. A student who knows something of the imagination and its ways of working, of æsthetic feeling and its modes of expression, will certainly take a more intelligent interest in Shakespeare, Tennyson and Carlyle than he otherwise would. Give an intelligent youth of 17 or 18 a novel of George Eliot's to read critically; what will be the difference in value of result according as he knows or not something of the facts of human will, and of social and moral feeling? I feel sure that a proper study of psychology is capable of transforming the reading of literature from a pastime with incidental revenue of instruction into a sincere, critical and fruitful appreciation of it, so far as extends the range of the student.

It follows from what has been said that the instruction in psychology should not have a dogmatic end in view--the communication of a system. I say this not only because of the many varying opinions on some psychological subjects, but also because, even in matters where there may be no dispute, the student is not in a condition to appreciate the truth. Neither his knowledge nor the maturity of his intellect allows him to grapple with any very systematic propositions. There is a two-fold error in furnishing the pupil with ideas, even if true, when he is not in a condition to appreciate their origin and bearing. In the first place the chief ultimate end of the study of psychology is to gain a knowledge of one's self. This must be a gradual process, and one which can be carried on only by the student himself. To present him at the outset with a chart of himself, formulæ, labels, nomenclatures and analysis complete, is to do away with the only object of the study. It is to commit the error of depriving the student of his primary pedagogic right *in re* psychology. The second aspect of the mistake is that it may shut off the student from learning anything new. If a student is thoroughly inoculated with a system, his growth in the future is rendered difficult. The cartilaginous portions of the brain are hardened and its sutures closed. One who has been introduced when his mind is most plastic into a system of hard and fast distinctions, cannot lose their impress. All new facts he can classify and comprehend only by their connection with his system. When a new fact appears he does not assimilate it; he takes out his rule and his pigeonholed box; measures the fact according to his ready-made standa d, and tucks it away in its appropriate place.

This suggests what is perhaps the chief end of the study of psychology—the cultivation of openness and flexibility of mind. If I were asked what is the chief intellectual defect found in pupils, I should answer, judging from my own experience, lack of flexibility, lack of ability to turn the mind towards new ideas, or look at old ones in new lights. There is a helplessness towards what lies outside of the wonted grooves of thought. While it is neither to be expected nor desired that students should exhibit precocious originality of conception, it is desirable that their minds should be hospitable and not alien to ideas. The mind does not need to create new lines in order to be able to move upon them when suggested. It is an important pedagogic point to know what can be done to make the intelligence of the average boy and girl more flexible—that is, better able to handle on its own account lines of thought upon which it has not been exercised. How can we make the mind, not more mature, but more receptive to ideas; how can we cultivate, not a higher grade of intelligence, but spontaneity of action? These are the questions. The notion that the study of psychology will aid in answering them, is because this study requires in such large measure the self-initiating, self-directing movement of mind. The student's mind is at once the material to be observed and the observer. It furnishes as well the method of observation. The student deals, not with a material foreign to himself, by which he may be hampered, but with himself. He must discover the very material of his study. Nor can rules of discovery be externally laid down for him in routine methods to which he must conform. The ways of getting at the material and of treating it must be left to himself. The teacher's function must be largely one of awakening, o stimulation. The mind of the average pupil will reject this awakening if it can, and will ask anything rather than to

be led out of the fields of authority into intellectual regions where it is itself responsible for results. But the test of the teaching will after all be the degree in which the mind is awakened and is given ability to act for itself.

This does not imply that the teacher is to be a nonentity, or that he is to give no positive instruction, or make known to the student none of the generalizations arrived at by past psychological study. It means that the student must be led to reproduce and realize the material in himself. It is a demand similar to that made in behalf of the experimental method in the physical sciences. The pupil must be made to see in concrete cases what his rules, etc., mean; and in the case of psychology, these concrete cases may be suggested by the teacher, but they can actually be found only by the student himself in his own mind. The result must be that if psychology is so taught it will aid largely in helping on to what is, when all is said and done, the end of education—the securing of intellectual freedom, in its various factors of openness of mind, hospitality to ideas, and ability to move among them unconstrainedly. I feel sure that if psychology could be taught in high schools with this end in view, fewer of our students in college would be monuments of blank and bland helplessness when a new idea is presented than is now the case.

This introduces us to our third question how should psychology be taught? The phrase, "if properly taught," has been many times used, and it is no more than fair to ask what is proper teaching. In reply I can only say it is such teaching as serves the end mentioned, and whatever other ends are desirable. It must be the function of the individual teacher, as it is his privilege, to lay down the especial acts required, and to make his wise adaptation of means to end. Yet a few suggestions will perhaps be pardoned. I have heard of a high school where the teacher merely announces at the end of one hour that the subject for the next day is memory, or feeling or whatever. He does not tell the pupils anything about them; he does not tell them where they can find out about them. But the next day, by skillful questioning, he draws out such ideas as he can from the pupil's own consciousness. I can well believe that with a wise teacher, and small classes, this hour is one of the most looked forward to, as well as one of the most profitable of the whole day. The method has at all events the sanction of Socrates, the founder of scientific psychology.

But the teacher must undoubtedly be on his guard not to foster undue or morbid introspection. I think that the study of psychology rightly handled will tend to check this habit with its evil results, for it will tend to make the student's feelings and ideas objective to himself; yet the teacher must be a wise physician of the soul to secure proper results. An aid to this, without doubt, is keeping the study in as close connection as possible with literature, as previously suggested. If the same teacher has charge of both studies, why should it be impossible to take some literary classic, and read it with especial attention to its psychological features —its treatment of perception, of imagination, of discursive thought, of impulses, of choice, etc? By such a method the student not only gains some idea of the scope and subject matter of psychology, but some idea of what constitutes style, and the proper material and arrangement of literary material.

The difficulty of giving any cast iron rules concerning method, psychology shares with all studies; with the additional difficulty—and advantage—that it is above all a personal study. The only first rule which it is possible to lay down is that the teacher must come into the most intimate relations with the minds of the students. Upon this condition depends in reality the answer to the other questions: Should psychology be taught, and with what end should it be taught? Unless it is met there is indeed no especial end to be gained by the introduction of psychology into the curriculum. The student would better confine his attention to the studies which he can absorb once for all, with no teacher standing between him and the light.

DISCUSSION.

PROF. W. H. PAYNE said: I do not wish to enter upon the discussion of this subject at this time, and I fully agree with the sen-

timents of the paper that a share of the public school attention should be given to the study of mental phenomena. There is, however, at this time a lack of books adapted to such work and a lack of teachers prepared to give instruction in the subject. Before taking my seat I wish to enter my protest against the idea which is now held in certain localities, that the young mind can only be strengthened by original investigation in any subject. Certain things have been already learned, and a pupil's mind may grow by a study of facts that have been given to him. We are subject to certain periodic pressures in which one topic and then another is brought into prominence. A short time since, the sciences were in the ascendant, then the study of English bid fair to overbalance all others, and now we have "manual training" claiming the ascendency. The true course, it would seem, is to give each subject due consideration, and not in the excitement of the moment allow ourselves unduly to magnify any one thing.

PROF. MONTGOMERY said: Psychology should be taught in the high-schools because so many of our teachers are prepared there. If we knew more of the study of the mind there might be less of running to extremes.

PRESIDENT HULL said: As we now lack any elementary text-book of this kind, would it not be well to prepare a pamphlet which should contain the dialogues of Plato in such form as to lead the high-school student to begin this study?

An Introductory Note

ON THE PROCEEDINGS OF THE FIRST MEETING OF THE

Michigan Schoolmasters' Club

IN February, 1886, a group of teachers from the University of Michigan and the Ann Arbor and Ypsilanti secondary schools founded the Michigan Schoolmasters' Club. Unlike other existing teachers' associations, the newly formed Club brought together for discussion of their common professional problems two classes of teachers that were universally regarded to be, if not two different breeds, at least two separate and distinct kinds. The radical nature of the Club's membership can be fully appreciated only when one realizes that, according to the best information available, it is, sixty years later, still alone in the field. For, apparently, even teachers find it much easier to talk about democracy than to practice it. And it requires an imperious democratic sentiment voluntarily to give up the enjoyment of caste distinction. To think of themselves as on the same level as "schoolmasters" and "schoolma'ams" is more than the vast majority of "college professors" can stand.

Within a very few years after its formation, the Club's influence exceeded that of any other educational organization in the State. One of the reasons for this was that the Club, until 1893, held meetings three times a year, whereas the other associations met annually. But immeasurably more important in the Club's rapid development of power were the ideas it stood for and promoted. It was a living embodiment of the idea that the college is an integral part of the educational system and not a precarious

ornament decorously poised on its head. And by papers and discussions, the Club gave direction and momentum to the idea that the problems of college education and secondary education cannot be solved independently of each other, but must be solved together.

In one important respect, the founders of the Club gave insufficient thought to the generations that would follow them: they made no settled provision for the publication of their proceedings. Sometimes they published and sometimes they didn't; when they did the one, and when the other, it is now difficult to determine with any accuracy or completeness. That they did sometimes publish is, however, beyond doubt—the Library of Congress and all other libraries to the contrary notwithstanding. The experience-able evidence herewith presented makes argument for the truth of this statement not only unnecessary but scientifically improper.

Randolph G. Adams was, a few years ago, able to obtain for the William L. Clements Library the published proceedings of the first meeting of the Club. It is the only known copy in existence. In the General Library of the University of Michigan there is a copy of one of the papers read before the Club in 1887. To call this paper an offprint would be somewhat misleading since the papers were printed and paged individually, on different sizes of paper, and then stapled together. In 1892 *The Inlander* published the proceedings of one of the meetings of that year as a supplement. As far as we know, the rest of the early record is missing.

John Dewey is one of the founders of the Club and was, for two years (1887, 1888) its vice president. His active membership was interrupted, the first time, during the academic year he spent at the University of Minnesota (1888–89); the second time when he went to the University of Chicago (1894). He has since been made a Life Member. How many papers he read before the Club it is

not easy to ascertain; it is fairly certain, however, that the last time he addressed the Club, while at Ann Arbor, was on May 23, 1891, when he and B. A. Hinsdale presented opposed views on the subject, "Mental Power as Specific and Generic."

In October, 1885, and March, 1886, Dewey published two articles analyzing a report on the effect of college education on the health of young women (who attended college, of course). If we ignore these articles or, what it is preferable to do, maintain that they are concerned with an historical episode in the sociology of masculine psychology, then John Dewey's very first contribution to education proper is his paper "Psychology in High Schools from the Standpoint of the College." It is interesting to recall here that in November, 1893, he published (in *Educational Review*) a companion piece, "Teaching Ethics in the High School." It is not making an overly bold inference to suppose that the membership-organization of the Michigan Schoolmaster's Club had some influence in directing Dewey's thought on educational matters.

Thanks are due Randolph G. Adams, in the first place, for securing the copy of the proceedings mentioned and, in the second place, for the idea of issuing this facsimile reprint.

JOSEPH RATNER

CALVIN THOMAS, A.B., Michigan, 1874, A.M., 1877, LL.D., 1904, a member of the University of Michigan faculty from 1878 to 1896, and professor of Germanic languages and literature 1887–1896, thereafter occupied a similar position at Columbia University. He died November 4, 1919, at New York.

DOUGLAS HOUGHTON CAMPBELL, Ph.M., Michigan, 1882, Ph.D., 1886, LL.D., 1936, was professor of botany at Indiana University 1888–91 and at Stanford University thereafter until his retirement in 1925.

JOHN DEWEY'S distinguished career began at the University of Michigan in 1884; he was professor of philosophy 1889–94, leaving to join the faculty of the University of Chicago. Since 1904 he has been professor of philosophy at Columbia University.

JAMES HENRY SHEPARD, B.S., Michigan, 1875, who in 1886 taught in the Ypsilanti High School, became professor of chemistry at South Dakota Agricultural College in 1888.

FRED MANVILLE TAYLOR, Ph.D., Michigan, 1888, in 1886 at Albion College, taught economics at the University of Michigan from 1890 until his retirement in 1929; he was made a professor in 1904.

CHARLES HENRY COLE, A.B., Michigan, 1882, A.M., 1897, was superintendent of schools at Hastings, Michigan, in 1886.

LEROY HALSEY, A.B. and A.M., Michigan, 1879, superintendent of schools at Battle Creek, Michigan, died in that city August 2, 1916.

HENRY ROMAINE PATTENGILL, B.S., Michigan, 1874, was Superintendent of Public Instruction in Michigan 1893–97. He died at Lansing, November 26, 1918.

ALEXANDER WINCHELL, who owned the copy of these proceedings now in the Clements Library, was well known as a geologist. He taught at Michigan 1853–73 and 1879–91, and from 1873 to 1879 was Chancellor of Syracuse University.

JOSEPH RATNER, author of the Introductory Note and a member of the College of the City of New York faculty in philosophy, is now writing a biography of John Dewey.

SCIENCE IN HIGH SCHOOLS: WHAT BRANCHES SHOULD BE TAUGHT, AND WHAT IMPORTANCE SHOULD BE GIVEN THEM.

BY JAS. H. SHEPARD, YPSILANTI HIGH SCHOOL.

Gentlemen of the Schoolmasters' Club:

Any discussion relating to science in our secondary schools touches upon one of the living issues of the day, for we are still in the era of development as far as science-teaching is concerned. It is true that the day is past when any blunderer may stumble upon undiscovered scientific facts "lying loose upon the surface," and it is farther true that science in the hands of specialists has soared to unexpected heights; and, moreover, when we look around us we need no guide, no prompter to tell us that science has yielded us untold benefits. Nevertheless, we are still asking *how* we may impart to the best advantage the knowledge we have so laboriously gained.

In older branches of study it is otherwise. Centuries of experience have enabled educators to impart a knowledge of these branches in such a manner that the minds of our youth are cultivated and disciplined in certain definite directions, while in science the great questions of the day are: *What* sciences shall we teach? and *how* shall we teach them?

There can be no doubt that there is a difference in the relative educational values of the various branches of science; but at the same time, it is safe to say that science-teaching has suffered more from the bad methods employed in teaching the chosen branches than it has by a bad selection of the branches themselves.

The reasons for this state of affairs are not difficult to discover. When the first attempts to popularize science were made, old and tried methods which were time-honored and successful in their legitimate fields were brought into requisition. These attempts were abortive and resulted in no little damage to the cause of science-teaching itself, for to these failures may be attributed that distrust with which some of our ablest and best educators are still wonted to regard all science-teaching.

Again, a period of twenty-five years will probably cover most of the legitimate efforts that have been made by science teachers to develop rational methods of presentation. Within this period much has been done and many facts have been thoroughly established, and none more thoroughly than the fact that science to be successful in its own field needs as careful attention to the details of presentation and as strict an adherence to the methods peculiarly adapted to it as any of the older branches could possibly require.

We may look upon this as marking an era in science-teaching—an era full of promise. In all sections of our country, in one school after another, adequate facilities for science-teaching are being provided, and the end is not far off nor difficult to predict. It is true that every step is questioned; but this only tends to insure the establishment of science on a firmer and a more enduring foundation.

A peculiar dislike to working methods on the part of some, an inherited conservatism in educational matters on the part of others, and a general misapprehension as to the necessary expense of establishing working laboratories, will unavoidably prolong the time that will elapse before all our secondary schools are suitably prepared for science-teaching. But, nevertheless, science-teaching is rapidly spreading from our higher institutions downward to our secondary

schools, and nearly every high school of any considerable importance in the land is doing good work in one or more of the branches of natural science.

Another feature is noteworthy, and that is, the establishment of manual training schools at various points, as at Toledo, St. Louis, and Chicago. The reports of good success from such institutions as these are gratifying indeed, for as one would naturally expect, here we may find science-teaching developing under the most favorable circumstances, since the fundamental tenet of such schools is to train the hand and mind together; and to this complexion at last must all our science-teaching come.

Science occupies a peculiar field in education and brings into utility and discipline traits and faculties which older branches ignored, overlooked, or emphatically discouraged No doubt, gentlemen of the Schoolmasters' Club, you too, as well as I, can remember the process by which, for example, the trait of curiosity that gave expression to itself in questions innumerable during our tender years was speedily repressed and perhaps exterminated; and you too, no doubt, will testify that thus an incalculable injury has befallen us. By former processes our powers of observation were not developed and the faculties of doing and originating were left in a dormant state while the prevailing tendency was to get all our information at second hand. Science changes all this, and thus utilizes material that has been ruthlessly wasted since time immemorial.

What branches of science should be taught in our secondary schools?

This question ought not to be decided by opinions formulated without regard to the educational value of the sciences named, nor by opinions biased in the direction of some particular science and ignoring the educational advantages of other branches of science, nor by the advice of those confessedly antagonistic to science-teaching. It ought not to be a question of sentiment, but purely and simply one of economics. In order to determine what branches may be generally accepted, far better would it be to adopt or reject a branch of science according to its ability to meet some such requirements as the following:

1. The materials and appliances for teaching that branch should be easy to obtain and of moderate cost.

2. The apparatus should be such that students may be safely trusted with it, and they should be required to use it daily.

3. The science *per se* should be such that the student may for himself demonstrate by experiment most of the principles underlying that science.

4. The science *per se* should demand of the student much intelligent, observing work, thus bringing him persistently in contact with the phenomena of the science.

5. It should not take too much time and should not depend too largely upon the condition of the weather nor upon locality.

6. And if practical results tending directly to enhance the future welfare of the student may be obtained together with the first five requisites that fact should not militate against the branch under consideration.

It is the experience and confessed conviction of many of the best science teachers at home and abroad that *chemistry* and *physics* may be placed first among those branches which best subserve the foregoing requirements. The apparatus employed in chemistry is inexpensive; the material is easy to obtain; the study affords the student a great variety of work entirely within the shelter of the school building, thus rendering his progress entirely independent of seasons, of vicissitudes of climate and of locality; most of the phenomena may be illustrated and observed by the student himself, and the satisfactory results obtained are excelled by no other branch. There is, morever, an attraction within the science itself that greatly aids the teacher in awakening within the student a *love* for experimental work which will make some of the more difficult experimentation of physics easy and less distasteful. Of the practical benefits following from the study of this science, we, as schoolmasters, need say nothing in this connection.

As to physics, the same things may be said except that the apparatus is somewhat more expensive; some of the experiments require

skilled manipulation to reach results that are at all satisfactory, and some of the experimentation, as in light and electricity, depends largely upon conditions of the atmosphere. The second exception, however, is an advantage, provided the student has had a good preliminary training.

It might be well to note in this connection that, through the kindness of Supt. Putnam, of the Ypsilanti high school, the writer has been able to make a series of experiments to ascertain which study, chemistry or physics, should come first in the high school course. In order to make the conditions as natural as possible, students of moderate average and excellent ability were selected for this purpose. As a result of these experiments it was shown that those who had had chemistry first invariably did the best work in physics, and that their work in chemistry compared favorably with that of those who had had physics first. Accordingly chemistry was placed in the junior year of the course and physics in the senior year, and the results now being obtained show the wisdom of this arrangement.

There are other reasons why chemistry and physics, closely related as they are, should receive a place in all our secondary schools. The human mind is so constituted that from the highest antiquity it has asked again and again: What is matter? What is force? And what the laws that govern the universe?

Chemistry, the science of the atom and its combinations, deals largely with ultimate principles, and that same curiosity which is implanted within the child-mind, causing the child to dissect or even to demolish his dearly beloved toys, may be relied upon to carry the maturer mind into broader paths of usefulness. It is inherent in man to analyze and to synthesize, to tear down and to build up, and hence arises the keen delight, the absorbing interest, and the contagious enthusiasm exhibited by the worker in experimental chemistry.

Physics, the exponent of energy, deals with other problems in nature, and unless the mind be dwarfed and misshapen by vicious training, it studies the various manifestations of energy with an unflagging zeal and undoubted profit.

Physiology has claims upon us of such a decided nature that it can not well be omitted, and when we come to consider the fact that the majority of our students receive no other training than that of our secondary schools, these claims become more imperative. It is evident that a knowledge of one's own system, of hygiene, of sanitary laws, and, in short, of how to live, is something desirable.

In physiology there is one thing to be deplored: this study does not receive fair treatment; as usually taught, the subject is dry and uninteresting, and its value as a means to mental and manual discipline is wholly neglected, in short it owes its present sufferance wholly to utilitarian considerations. Now this is wrong, since this study also may be made to yield great educational results in scientific training.

The sooner we disabuse ourselves of the idea that any branch of science is simply something to read about, to talk about, and to learn words about, the better it will be for science-teaching.

The greatest need at present in physiology is more biological work. Not indeed that so-called biological work that simply requires the student to examine a few prepared specimens, but that biological work which requires him to collect his own material, to prepare it, and to observe for himself the phenomena to be illustrated.

Microscopes, microscopical materials, and dissecting instruments are cheaper now, and the materials for teaching "experimental" physiology are abundant; and there is no reason why this study should not be taught by working methods.

There is, however, one great desideratum at present, and that is a good "working text." The schoolmaster may, therefore, with justifiable impartiality decline to assume the entire responsibility for the present status of this science.

Botany has stood in high favor with many schools for a longer period than any other of the sciences mentioned. There can be no question that this study, when properly taught, affords excellent mental drill, and is capable of furnishing much practice in

manipulation. But here again we have another example of a study that has not been pushed for its full educational value. The end sought in many of our secondary schools is simply to enable the student to analyze a few specimens and to learn the names of a few flowers. This is an end altogether unworthy. We need more biological work in this branch also, work that is perfectly feasible, and work that may be accomplished with the same microscopes and apparatus that serve in physiology. In this study, as in physiology, a suitable text-book is wanting.

There are some agencies that will, per force, change the present status of botany. The flowers now so necessary to the study are growing scarce in many vicinities adjacent to our larger schools, and in large cities it is extremely difficult to obtain the needed specimens. One of the prime necessities is that every student obtain his own specimens, otherwise he certainly falls short of gaining the knowledge which only the collector gains.

Again, this study is very much at the mercy of the elements. Rains, backward springs, and drouth all conspire to defeat the instructor's endeavors, as the work is now arranged. It is therefore doubtful whether this study will maintain its exalted position without undergoing radical changes, owing to the rivalry of newer branches that afford better facilities.

Zoölogy is not widely taught, but there is no reason why, with a proper text (of which there is none suited to our needs), it may not become an active rival to botany. In many respects this study may be made to excel botany.

Geology offers some excellent advantages. The chief reasons why this study can not be adopted in all our schools and adapted to working methods are:

Some sections of our country are entirely unsuited to follow it chisel and hammer in hand, and it is no easy matter to provide collections suitable for illustrating its phenomena; but given the proper conditions, there should not be much difference, from an educational point of view, between this and the last two branches named.

Where it is not practicable to teach all three of the branches last named, several considerations could be taken into account in selecting the ones to be taught, such as: the natural advantages afforded by the country adjacent to the school; the predilection of the teacher; the immediate aims of the school itself; etc., etc.

When we ask what importance should be given the study of science, we approach controversial ground. It is evident that the majority of educators favor a mixed course of studies selected for their intrinsic educational value, but as regards the importance of science teaching, educators may be roughly divided into two classes, viz:

1. Those who would not make the study of science obligatory upon all.

2. Those who hold that every student should have at least *some* scientific training.

It is needless to say that those of the first class are in an overwhelming majority in our own State. One only needs to examine the curriculum of any of our better high-schools to find an expression of this fact in the courses there laid down.

The arguments advanced in support of this position are interesting, and it might be well to say that the validity of these arguments is seriously questioned by the second class, which is rapidly increasing.

These arguments are usually as follows:

1. There are some pupils who have no taste nor adaptability for science studies.

2. There are many professions and occupations in which the sciences are not useful.

3. The somewhat general though usually unvoiced sentiment prevailing with the first class, that other studies are emphatically "strong meat for strong men," while the sciences are better adapted to those weaker intellects that must of necessity accumulate in every school, and that a growing popular demand for science must be pandered to, may possibly be considerations which have more to do with the case than one would naturally expect.

4. A disinclination to change that order of things which is customary, time-honored, and successful in certain directions.

The claims of those who would make

natural science obligatory upon all are equally interesting. These claims are substantially as follows:

1. Any system of secondary education which openly or tacitly encourages or produces an unsymmetrical development is evidently vicious. Just as the physical man needs a variety of food containing nourishment in due proportion for every part of the body, so likewise does the intellectual man require a many-sided training. Who, by any manner of means, can safely say that any one-sided plan is the right one and that all others are wrong? Or who can positively assert that the greatest good will ensue by training certain faculties while others are wholly neglected?

2. Science as an educator has peculiar claims upon us, and any plea for science in education is simply a plea for constructing out of the rude material placed in our hands a symmetrical and harmonious structure that shall indeed be a monument unto the builders thereof.

3. It is as true to day as of yore that there are those who having eyes see not, having ears hear not, and having hands handle not, and this fact is as deeply deplorable to-day as in days gone by.

4. There is no calling nor profession in which a man may now engage and not be benefited by the study of science.

5. We are emphatically a "nation of doers" and it is but right that some concessions should be granted towards cultivating those traits that mark our individuality as a nation.

6. There lie within the sciences themselves as great facilities for *mental* culture as in any studies known to man.

It is with no little interest that science teachers are watching those schools in which at least one branch of science is made obligatory upon all, and if the results there obtained prove satisfactory, great will be the credit due those pioneers who have had the courage to put to the crucial test this side of this much mooted question. Our sister State, Indiana is alive to this work, and when such excellent high-schools as those of Indianapolis and of other large cities in that State attempt the solution of this question, we may confidently expect more light upon it at no distant date.

Here in our own State, the courses are running side by side and our efforts towards solving this problem are indirect. We propose to measure the value of science studies by the number of pupils who are drawn into the courses devoted mainly to science. Thus we are constantly bringing into contrast the results of the old and the new, and it is gratifying to note that where proper facilities for science-teaching are provided, science is gaining a firmer foot-hold day by day. We content ourselves by saying: "If science study be bad it will work its own condemnation If it be good it will in no wise completely supplant other instruction, but on the contrary it will be found to be a powerful and efficient ally."

Under the circumstances it might be well to suggest:

1. That it would be bette for us to teach but few of the sciences and to devote all our time and energy to doing better work in those few. This suggestion merits a careful consideration.

2. In equipping our laboratories we should not spend one dollar in glittering or showy apparatus until we have secured ample apparatus and materials *for the student to work with.* It is not worth our while to spend our time and means to make science impressive. The student is not benefitted by being overawed. What he needs is a stimulation to action and encouragement to do and to originate for himself.

3. The best way to get more money for equipping our laboratories is to make a good use of what we do get. School boards, as a rule, are plain business men who are not slow to see when money is put to a *paying* use, and while they may hesitate to invest good, serviceable money for showy toys to be put in glass cases, they will go as far as the needs demand in providing for plain, homely work.

4. In our courses devoted to science it would not be far from right to give three years to science studies. Of this time, one year each may be profitably spent upon chemistry and physics and one half year each upon botany and physiology or upon equivalent studies. By so doing, one-fourth

of the student's time is given to natural science in our usual four year high-school course.

5. And finally, we should pay careful attention to *how* we teach the branches selected. Purely didatic methods are a bane to science study. The best results, as has been shown by a host of science teachers, may be obtained by combining laboratory work by the student with carefully adapted didactic instruction.

DISCUSSION.

SUPT. KENDALL, of Jackson, said: It is not necessary to enforce a call for science teaching, it has been partly met already. Shall we teach it for disciplinary value, or for the utilitarian value, or shall we mix the two? I believe that botany is usually taught wrong. We should teach the study of the whole plant, the name is of minor importance. I would teach it first of all the sciences, because the material is at hand and pleasant to handle.

Physics should be first taught by experiment. Physiology is of value from the knowledge that it gives. I would throw out geology, zoölogy, and astronomy, but I do not know what to think of chemistry. We should make an effort to gain our knowledge of the sciences first hand.

SUPT. COLE, of Hastings, asked: Should we strive to bring our principles out of the experiments, or seek to use experiments merely to illustrate principles?

PROF. FALL, of Albion, said: My creed is to study things or objects, not books. It is not necessary to wait for costly apparatus. Study natural and simple objects, not artificial or complex ones. An inclined plane, which pupils can make at a cost of less than a dollar, is better than Atwood's costly machine to teach laws of falling bodies. More chemistry can be taught with $5 worth of illustrations than physics with $50. Let pupils have access to apparatus when preparing the lesson. A careful use of note-books and writing to teach language. Do not keep utility too much in the foreground.

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THE PUBLIC SCHOOLS AND MORAL TRAINING

BY PROF. F. M. TAYLOR, ALBION COLLEGE, BEFORE THE MICHIGAN SCHOOLMASTERS' CLUB, APRIL 30, 1886.

That the domination of moral principles is essential to the maintenance of the social order is one of those propositions which are seldom controverted, yet which are made operative only through constant reiteration and through frequent experience of the disastrous consequences which ever follow their neglect. Some lessons man learns with a readiness which led the ancient philosphers to argue for the doctrine of pre-existence: but the vital importance of the moral order is not one of those lessons. The youth as well as the unreflecting man listens with ill-disguised incredulity to the dogma that righteousness exalteth nations and individuals. He sees successful wickedness everywhere about him. Unlike the Hebrew poet, he does not consider "the *end* of that man." The strong, fresh powers within him exult at the thought of a conflict. He is confident that talent and genius have no need to ally themselves with prosy morality. Such alliance is for the timid and weak, not for bold spirits. This habit of thought belongs, too, to the youth of communities. Perhaps nowhere is it developed so fully as in America. We love smartness. We more than half believe it better than goodness. Greatness of character receives from us but little appreciation, greatness of intellect is apotheosized. The exaltation of Washington has been the work of Europe, *we* worship Hamilton.

This failure to appreciate the moral element is due to no lack of preaching and teaching. We have had line upon line, precept upon precept. But a few months have passed since many of this company listened to the earnest and eloquent appeal of Archdeacon Farrar for the revival of the old Puritan spirit to which alone, in his thought, could be attributed the greatness and glory of our nation. Matthew Arnold, also, while lecturing in this country last year, talked much less than his wont about the lack of light in Philistinism, more of its strength, its morality, its stability. Referring to contemporaneous English history, he says: "Infelicitous the general direction of our affairs may be; but the individual Englishman whenever and wherever called upon to do his duty, does it almost invariably with the old energy, courage, virtue. And this is what we gain by having had, as a people, in the ground of our being, a firm faith in conduct; by having believed, more steadfastly and fervently than most, this great law that moral causes govern the standing and the falling of men and nations. * *" Later in the same lecture, he puts this truth very forcefully and beautifully in these words: "Having in mind things true, things elevated, things just, things pure, things amiable, things of good report; having these in mind, studying and loving these, is what saves states."

Many of us, also, will remember the opinion very strongly expressed by Herbert Spencer while here in 1882, that what we need as a nation is not more intellectual, but more moral culture; not more knowledge, but more sense of obligation.

I have referred at length to these men who have spoken to us most recently, not because they are alone in the expression of such sentiments, but because this sort of truth impresses us most, when coming from those who are making the public opinion of our own day. Beside them, could be placed the thought-leaders of every age. Carlyle spoke in Titanic forms to the last generation. To us as a nation Washington spoke in that farewell address which closed a career the most honorable, the most glorious, the most fraught with good to the race, that any man has been permitted to run. These were his

words: "Of all the dispositions and habits which lead to political prosperity, Religion and Morality are indispensable supports. In vain would that man claim the tribute of patriotism who should labor to subvert these great pillars of human happiness, these firmest props of the duties of men and citizens." So have spoken the statesmen and jurists, the philosophers and poets, the preachers and prophets of every age.

Nor is this to be wondered at. Dependent as is ethics upon the sanctions of religion, there is after all no need of revelation to show the vitally essential character of moral forces in the maintenance of society. Let us try for a moment to discover the ultimate foundations of the social structure in which we live. Very little reflection is needed to convince us that these foundations must consist of some element or elements from which may be derived security for life, liberty, property, honor, etc. All motives to effort lose their force if man cannot hope to be secure in the enjoyment of the fruits of that effort. Yet, in his life, liberty, property, man is every day menaced by the greed or malice of his neighbor. What are his safeguards? What are the barriers that shut out the thief, the tyrant, the adulterer, the murderer? Probably most of them derive their strength from one or all of the following motives: the fear of the physical penalties of the law, the fear of a general destruction of social bonds, the fear of adverse public sentiment, the fear of conscience, the fear of God. Now on which one of these must society place its chief reliance?

The fear of physical penalties is of course the barrier which is set up by the state. That this barrier is, and will ever be essential, must be at once admitted. Yet all of us have lived long enough to learn that the domain of positive law is greatly limited; that there are numberless violations of individual rights which governments the most despotic cannot reach; that even the most open crimes against society often go unpunished because of the venality, the negligence, or the inefficiency of those who are called on to administer the law.

But it is just in this matter of administration that the prime importance of moral forces is most clearly seen. Admitting that the rod and ax are the only safeguards against the degraded and vicious, at once the question arises, who shall insure that the rod and ax shall be justly and effectively wielded? Do you answer — the people? We ask again, who shall insure that the people shall act justly and effectively? Clearly we must get beyond the rod and ax.

But it may be argued that an enlightened self-interest can be depended upon to bring an officer to the doing of his duty, that the knowledge that the enforcement of law is essential to the very existence of society will lead even the venal and cowardly to just and vigorous action. Now that this motive has great weight can not be denied. An honesty founded on the maxim that honesty is the best policy is better than *no* honesty. Doing one's duty from an enlightened self-interest is better than *not* doing it. Still, this safeguard is inadequate for two reasons: first, that it *is enlightened* self-interest makes it impotent to affect the majority of men, who are not enlightened; and, secondly, appealing, as it does, to one form of selfishness against another form of selfishness,—appealing to the thrift that cares for the morrow against the appetite that would enjoy to-day,—appealing to that which is strong in reason but weak in emotion, against that which has no place in reason, but has the whole place in emotion,—enlightened self-interest breaks down just in the time of trial; and the torrent of passion sweeps away in a moment the work of a lifetime.

Nor does the great power of public sentiment do away with the need of moral forces. In the first place public sentiment has but little influence upon those who most need its restraint, since they care neither for its approval nor its condemnation. Secondly, in so far as it is capable of enlisting men in the service of virtue, it brings only half-hearted servants who do their duty while the eye of the master is upon them, but shirk the moment they are left to themselves. Finally, when we ask for the origin of public sentiment itself, the fundamental character of moral forces becomes most apparent. Over the people there is no one to brandish the rod and ax. Above them is no bar of public

opinion. If they act justly, it must be from motives of self-interest, of conscience or of religion. But the supposition that the masses of men have sufficient enlightenment and sufficient self-mastery to yield obedience to motives which oppose only the feeble barrier of reason against the tide of passion and prejudice is a hypothesis too wild for consideration.

We are thus compelled to admit that society must depend for its salvation upon those sanctions of the law which are present in the human heart at all times and under all circumstances, viz.. the fear of God, and the fear of one's own conscience,—to admit that the social system without these foundations would be like the earth in the mythical cosmology, supported by the serpent, coiled upon the tortoise, standing on—nothing.

Having said so much of the importance of *moral forces*, it is hardly necessary to speak of the importance of *moral training*. Nature can do much, must do much, but nature needs supplementing. Reason furnishes Moral Principle; but habit, contact with prevalent perversions of those principles, the influence of passion, all tend to distort original principles. We see through a glass darkly. If we would have true moral vision we must at least guard it against aberrations—we must train it. But clear seeing is not enough. The will must consent to follow the light. To secure this, adequate motives must be touched in the emotional nature. The heart must be cultivated on its moral side. But, as clear seeing is not enough, so right feeling is not enough. We must not only see the right, not only love the right, we must acquire the self-mastery which will enable us to do the right. That this ruling of the spirit is largely the result of training no one will deny. Many believe that religion is potent to shorten the work, to do in an hour the work of a lifetime; but outside of religion all admit that no other agent can be found but persistent, determined culture, a culture which must be largely one's own work, and yet in which the assistance of wise friends may be of untold value.

If, now, the importance of moral training be fully admitted, upon whom does the duty devolve? That it is largely the proper work of the parents, the church, the Sunday school, the religious press, can not be denied. Has the public school also a duty in this matter? For my own part I often listen with impatience to the enthusiastic talk of those people who find their chief satisfaction in saddling new responsibilities and duties upon the already overburdened teacher. God has not yet abdicated the sovereignty of the world, and called on the school teachers to take up His burden. Nevertheless, while extremes are to be avoided, still it is probably true that the moral training of the children committed to our care has some claim upon us.

And first, as to the teacher's personal obligation. The obligation of any of us to help one of our own kind is to be estimated by two considerations:—the extent of his need, the extent of our opportunities. Now what of the pupil's need? His moral nature is in the scale, an interest second to none save that which concerns religion. More particularly the moral need, the moral stake, is especially great during the time of our mutual relation as teacher and pupil,—a time including two most important periods of every human life, the plastic, formative period of childhood, the storm-and-stress period of youth, when new forces are taking hold of our lives, potent for good if mode our servants, but carrying everywhere ruin and destruction if once they obtain the mastery. Again, there is not a little at stake growing out of the character of the school surroundings. For we can not close our eyes to the fact that the promiscuous social intercourse of school life is not an unmixed good. What may not our children learn of evil from bad boys and bad girls with whom they would never come in contact save for the public schools? In the third place it can scarcely be doubted that the abnormal mental and nervous development of school life diminish our powers of resistance against some forms of temptation, and strengthen some vicious propensities.

If, now, we measure the teacher's obligation by the opportunities which are given him, the fact of his duty becomes more evident. For about six hours a day, five days in the week, forty weeks in the year, during

from seven to twelve years, are continued the relations of teacher and pupil. The importance of this fact is greatly enhanced by the considerations already adduced that these years cover the most plastic period of the child's life, when his character can be moulded and shaped almost at will. Now add to this the peculiar position of the teacher—the fact that he *is* the teacher — that, by virtue of his position, he is looked on as next to, if not before, the parents themselves in the work of educating the child. Nominally he is only the preceptor, the instructor, the intellectual guide; but, as a matter of fact, the child naturally looks to him for direction in dress, manners, taste, politics, morals, religion, everything. Note, again, the opportunity offered the teacher, growing out of the respect which his high place in the community secures him, a respect greatly increased by the fact that, being a teacher, his attitude towards every question is that of scientific impartiality, so that the child looks upon the teacher as one who is paid not for *being something*, but for *knowing everything*, and thus, while he listens to the moral instruction of the minister, with impatience, as to one who is, ex officio, a moralist, to his teacher he listens as to an oracle.

I have thus far spoken of the teacher's obligation as a personal one; but in the light of what has been said concerning the relation of morals to the state, it is not unnatural to argue that the teacher should have a large share in the moral education of his pupils as a part of his duty to society, his duty as a citizen. In this same direction, it could of course be urged that it is the duty of the authorities of the school, formally and regularly to provide for moral instruction, to demand in the teacher fitness for this work as well as for teaching mathematics, language and history.

Having thus endeavored to show that it is the duty of the public schools to have a part in the moral training of our youth, it remains for us to consider how that duty is to be performed. In order the better to do this, let us see what moral training involves. And, first, as to moral principles. Probably most of us believe that they are native to the mind; but no one will deny that those principles are greatly distorted by bad education, by habit, by self-interest. Moral education involves, therefore, a certain amount of instruction in ethical principles. But this is not enough. The cultivation of the judgment is equally necessary. Nothing is more common than to see people who are fully purposed to obey the whole law, violating its plainest provisions, because of their failure to see that the law applies to the particular case in question. Again, the ability vividly to picture to one's self consequences not yet worked out, is of prime importance. Probably more heinous crimes are due to the lack of this power than to any other cause purely mental. Could the man who in a moment of passion takes the life of his friend, before the deed have placed himself in imagination in the circumstances which surround him a moment after the crime, could he have realized his own remorse, the sorrow of the dead man's friends, the horror of the whole community, probably nothing would have been able to nerve him to the deed. Education can do much, also, to impress upon us the greatness of the sanctions of moral law. The admonitions of those we respect help to quicken our consciences. Respect for public sentiment can be instilled into the child, till almost a vice. And the most tremendous of all sanctions,—the will of the Supreme Being, the rewards and penalties of the future life—must depend for our knowledge and acceptance upon instruction from without. Emotional susceptibility, again, is doubtless capable of cultivation. It is a matter of every day experience that certain courses of training tend to make the heart hard, others to make it tender. And, finally, while in the work of acquiring self-mastery, each one must himself do the larger share; yet the advantages of proper guidance are recognized by every one.

Now, if these six particulars substantially cover the field of moral education, we can easily work out the teacher's part in relation to each. In the first place, direct, systematic formal instruction is possible in the first, second, and fourth particulars, i. e., in teaching ethical principles, in cultivating a discriminating judgment, and in informing the mind as to the rational and religious sanctions of

morality. The desirableness of such formal systematic instruction is every day obtaining an increasing number of advocates; but it is probable that the agitation is at present premature.

Nor need this cause us great anxiety. The most potent and efficient moral training in the public schools must ever be indirect, incidental. In securing that the pupil shall *know* the right, the first and most important instrumentality of the teacher will ever be that direct and explicit setting forth of the truth, which is so often and so foolishly condemned as preaching. Perfunctory preaching, too constant, too frequent preaching, is undoubtedly harmful, but the spontaneous, earnest appeal to the judgment and conscience on the occasion of a particular violation of right, is one of the most potent instrumentalities for the moral elevation of both old and young. A lesson merely acted out, not interpreted, not enforced, not applied, may be of value to the exceptionally discerning, but is lost on the average child.

Another exceedingly valuable means for impressing moral truth is committing to memory proverbs and selections wherein wise and noble sentiments are embodied in choice and effective language. This universal and world-old practice has its adequate defense in certain cardinal facts in human nature. We cannot be always equally clear-sighted, or equally sensitive to noble emotions. In our best moments, when we see clearly and feel deeply, we construct for ourselves, or adopt from another, some principle of action expressed in crisp, easily memorized language. When, now, the hour of danger comes, and our perceptions are clouded and our sensibilities dulled, the words, that as words, cling to our memories arise in the mind, and by the law of association, tend to reproduce the states of thought and feeling with which they were first associated, or, failing in this, they still secure the obedience of our wills to a mandate which we once deliberately accepted, and which we now believe would still secure our assent were we to think upon it with equal patience, with equal fullness, with equal candor.

Taking for granted, now, that the pupil's mind has been carefully indoctrinated with right principles of conduct, our next task is to cultivate his faculty of judgment so that he shall be able correctly to discriminate in the particular application of those principles. This seems to me the easiest part of moral training; a training for which almost every lesson in history or literature will furnish an exercise. Every time we discuss with our pupils the right or wrong of the conduct of leading characters in the past, or of the public men of our own day we are cultivating moral discrimination in the most effective method conceivable. The consideration of contemporaneous public men, especially, can always be depended on to secure attention and interest, and earnest, temperate, but straightforward condemnation of social, commercial and political corruption in high places coming from one so greatly respected as the public school teacher, is one of the most important instrumentalities for neutralizing the trifling non-committal tone which is such a blemish in the secular press.

The study of history and biography may also be made very useful in quickening the imagination. The naturally unscrupulous child, who thinks only of the result, should have his attention called to the woe and suffering which appear as incidental consequences in the headstrong pursuit of any object. His imagination should be filled with the sights and sounds that *follow* victory: the torn or severed limbs; the pools of blood; the groans of the dying; the staring faces of the dead. And so, in every way the ability to put one's self in the other man's place should be persistently cultivated.

If now we attempt to secure an adequate understanding of the sanctions upon which moral action rests, we must rely not a little on direct teaching, but most on the power of example. The greatness of these sanctions is but little impressed upon us till we see them as dominant factors in the life of some one whom we respect. Let the teacher show that these sanctions are potent to determine his own conduct, and to color the conduct and policy of the school, and his pupils will believe in their reality. This is, in my judgment, the strongest argument for the use of the Bible and for devotional exercises in the school. Those exercises constitute the

official, formal recognition of our common dependence upon and obligation to the God and Father of us all. Yet, of course, this general acknowledgment of our religious obligations is valueless if merely perfunctory. It must be followed all the day by that proof which only *conduct* gives that our acknowledgments are real and heartfelt.

When we come to the cultivation of worthy affections and the repression of vicious ones, we again derive great assistance from history, biography, and literature. Here, too, the power of any exhibition of heroism, generosity, or other noble sentiment, to cultivate its like in our pupils, will depend on the proximity of the actor in time and space. Here, also, can be utilized the manual training for which so many are clamoring. Combined with hygienic living it may do much to repress vicious tendencies. It is important, also, to occupy the minds of pupils with recreations which leave bad propensities to die for lack of attention and nourishment. In this line we should encourage literary societies, musical clubs, libraries, etc.

But the system and methods of discipline are, after all, the great instrumentality. Indeed this matter of discipline may supplement or neutralize the moral training given by the teacher at almost every point. Through it we may reäffirm or give the lie to the principles which we have formally and systematically taught. Through it we may undo all our efforts to cultivate the pupil's powers of discrimination by prescribing petty rules which leave no room for individual judgment; or, by trusting to general principles or unwritten rules, we may make all the relations of the school to constitute a sort of moral laboratory, where the children are every day applying the principles or solving the problems of this most complex science. So the sanctions, rational and religious, which we have set up in theory, we may tear down by our own example. In like manner, by manifesting in our dealings with the pupil a uniform spirit of kindness, sympathy with childish feelings and fancies, a disposition to put the best construction on the child's conduct, promptness to recognize and encourage the first movings of every noble and pure sentiment; by all these means we may cultivate in the best direction that part of the child's nature wherein are the springs of all right conduct.

And, lastly, the system and methods of discipline which we adopt constitute our most potent means for training the child to master self. By habituating him to depend for his moral strength upon the will of his teacher, to derive his inspiration from the artificial stimulus of merit-marks, reward cards, rolls of honor, and such like, we may wholly unfit him to govern himself in obedience to the motives of real life, or indeed to govern himself at all; while, on the other hand, by throwing him much of the time on the resources of his own judgment and will—by showing him that we have faith in his own honor and conscience—we may send him out manly, steadfast, trustworthy, fully ready to bear his share of the world's burden, to perform his part of the world's work, to do his duty in the world's battle for virtue, justice, and truth.

DISCUSSION.

PROF. MONTGOMERY of Kalamazoo said: Moral and mental training are more closely connected than we realize. We have in charge all sorts of children. How shall we teach truth to truthless homes. There is much training going on that we as teachers must counteract. We should strive to inculcate *principles* of sound morals. Much wrongdoing comes from lack of fixed principles We must teach the subject largely indirectly. We must excercise the principles of sound morals, and most of all, we must be what we wish our students to become. There is no use for an immoral teacher to try to teach morals. The proper spirit is to try to be what we ought to be. A man can't be a rascal and train pupils in good morals.

PRESIDENT J. B. ANGELL of the State University said: I am much pleased with the wise and temperate character of the article by Prof. Taylor. I may perhaps call attention to a little danger to which we are now subject, and that is many persons are placing too much reliance on formal ethical instruction in schools. Some seem to think that if a law be passed, that ends it. It will be well to impress all with the importance of

heeding the laws. It is plain that we do not exceed what the state requires, even if we make reference to those religious and divine sanctions of ethical truth. The state opens legislative sessions and court with prayer. Chaplains are employed in the schools, reformatory institutions and the army It is a recognized fact that Christ is the central principle in days of thanksgiving and fasting and prayer. Marriage and divorce laws are laws of a Christian country. So in a public institution, we have a right to recognize these principles.

In training children we cannot go far without running into some of these Christian sentiments. There is doubtles harm done by too much preaching, yet the teacher with tact can find many occasions to inculcate morals. The incarnation of ethics is in the person and brain of the teacher. We need to exercise a large share of sanctified common sense.

SECONDARY INSTRUCTION IN ENGLISH.

A SYMPOSIUM.

PAPERS READ BEFORE THE SCHOOLMASTERS' CLUB, APRIL 30, 1886.

Guiding Principles.

SUPT. C. H. COLE, HASTINGS.

There is now a great public awakening, not only among teachers but also among all intelligent people in regard to the subject of English in our schools. There is a conviction that the English language ought not only to be understood but also to be spoken correctly. Teachers are seeking new ways of teaching it, seeking to get more of it into their courses of study, and trying to make their pupils love their mother tongue, and gain some acquaintance with its priceless treasures.

Every great public awakening, every new movement embracing large interests, is one of the signs of progress; every organizing and banding together of human beings is an effort to overcome some of its limitations. But in every great agitation for desirable ends, there are some extremes and dangers to be avoided. Among the multitude of books, of plans, and of ways of teaching, have we sufficient direction of discussion and inquiry? Have we principles that shall guide us in seeking the desirable ends and in avoiding the dangers? May we not hope for these from this club in consequence of the high ground that it occupies?

A recent writer says: "In order to progress, there must be guiding and interpreting principles." [Bowne's Metaphysics, page 532.] If there is any one thing more than another that the schoolmaster needs to balance him, to encourage him, and to strengthen his faith, it is principles to guide him in seeking his ends, and principles to explain to him the meaning of the multitudinous things that meet him on the way. Else how shall he make a judicious selection and use of material?

What are our purposes in teaching English? Intelligent reading and exact expression.

How are we to attain this? By having the pupils do *original* work. Let me define what I mean by original work. The same writer in speaking of the exchange of thought, takes the familiar instance of two persons conversing to illustrate it. He says: "The actual exchange takes place only through a certain activity on the part of both. One thinks and gives the appropriate objective sign. The other perceives the sign and reads off its meaning. The sign is but the occasion upon which the second mind constructs within itself the thought of the first, and then attribute the thought to the first. To perceive another's thought, we must construct his thought within ourselves; and our perception of others' thoughts is nothing but such an inner construction, plus an attribution of them to others. The thought is our own, and is strictly original with us. At the same time we owe the thought to the other; and if it had not originated with him it would probably never have originated with us." [Id. p. 403.]

The principle here stated holds true in every department of education, though the illustration is only of two persons conversing together. To cause our pupils to think the thoughts of others is our grand aim. When we have accomplished this our task is accomplished. The end and aim of all our search, our study of method, and our discussion, is to cause our pupils to do this sooner,

easier, and more completely than they now seem to do.

Must they, then, do nothing more, do no greater thing, than to think over again after them, the thoughts of the English masters of thought and expression? What higher aim in the study of English can we place before our pupils than to acquire the ability to think the thoughts of the English masters, and to reap the pleasures that will flow therefrom? Surely it were a task sufficiently great for any one of us to construct and reconstruct in our minds the thoughts of the masters. This is not slavery, but the way to genuine intellectual freedom; for the mind that enters into all their learning and treasures, is expanded, elevated, and ushered into the presence of universal truth. The mind, in its freedom, then puts together and takes apart their conceptions in its own way, and delights in this work; but it will not *re*-construct them till it first constructs them.

Emerson says, "Great men are more distinguished by range and extent, than by originality. If we require the originality which consists in weaving, like a spider, their web from their own bowels; in finding clay, and making bricks, and building the house, no great men are original. Nor does valuable originality consist in unlikeness to other men." And again, "great genial power, one would almost say, consists in not being original at all; in being altogether receptive; in letting the world do all, and suffering the spirit of the hour to pass unobstructed through the mind." [Representative Men, pp. 153, 154]

The teacher that tells his pupils to be original in the sense that they must differ from the authors that they are reading, does the pupils a real injury. They read not to understand the authors, but to express an opinion at variance with them. They read "to contradict and confute," "to find talk and discourse," not "to weigh and consider." They become conceited, and satisfied with the idea that their own thoughts are of more consequence and value than the thoughts of the authors, with whom they have been taught to disagree, and thus their road to future progress has been effectually barred.

Another phase of the subject, closely related to what has just been said, is the separating, *of criticism from the principles of criticism, in some public discussions and papers.* It is asserted that pupils should be urged to criticise, but it is not asserted that they should give a reason for their criticism, which shall be something more than a mere subjective feeling or notion of their own. To criticise is to judge. To judge of anything is to compare it with something assumed as a standard, and to pronounce that it equals or falls below the standard. This is true not only of all so called criticism in all its branches, but also of all faultfinding. In the latter case, the trouble is not in pronouncing the judgments, but in the character of the standards assumed.

To tell the faults of style implies a knowledge of the qualities of good style; to say that anything is unpoetical, assumes a knowledge of what constitutes the poetical; to assert that a given thing is not practical, carries with it an assumption of knowledge of the practical. Oftentimes these judgments are based upon purely "personal predilections and blind habits." Would that we could appreciate and realize Schlegel's definition of a true critic. He says, "no man can be a true critic or connoisseur without universality of mind, without that flexibility which enables him, by renouncing all personal predilections and blind habits, to adapt himself to the peculiarities of other ages and nations—to feel them, as it were, from their proper central point, and, what ennobles human nature, to recognize and appreciate whatever is beautiful and grand under the external accessories which were necessary to its embodying, even though occasionally they may seem to disguise and distort it." [Schlegel's "Dram. Lit." p. 18.]

It is true, this is high ground, but so much the better to have before us. In these times we need to teach our pupils principles that lie outside of self and the interests of self, principles that will assist them to lay aside "personal predilections and blind habits," that will lead them to see, besides the "special to me," the "common to all."

Those that are deemed the masters in any age and nation are the ones that have imbibed most of the spirit of that age and na-

tion and have embodied it in their writings. To express a contempt for Milton's theology, is to express a contempt for the whole English nation in their struggle for religious liberty and freedom, is to fail to see the relation of his age to the preceding and succeeding ages. "Of all our brilliant English divines of the seventeenth century," says Stanley, "there is not one who can be fairly said to have exercised as much influence over the popular theology of this nation, as has been undoubtedly exercised by a half-heretic, half-Puritan layman, the author of 'Paradise Lost.'" ["History of Eastern Church," p 37.] And why? Because he imbibed and bodied forth in his writings, to a larger extent than any other man the common spirit of the nation. The questions of orthodoxy or non-orthodoxy from our own standpoint ought not to enter into a discussion of the merits of Milton so as to mar our enjoyment and appreciation of him; and it is the duty of the teacher to tell the pupils those things frankly.

I do not wish to be understood as opposed to criticism; on the other hand, with another, I say, "Let criticism be as free as air." But let the principles of criticism also be as free as air. In the other studies of the curriculum, we encourage independent thought and criticism, but we are pretty careful not to let it go uncorrected when it is at variance with the established principles of our text-books and those that we acknowledge as our masters. Why not, so far as possible, apply the same principle to the teaching of English literature? There can be no intelligent criticism in any study without principles or standards, and those other than the "special to me." The "special to me" makes us small, narrow, and carping critics, not large, generous, and noble.

A writer in the "Journal of Education" of April 8, well says: "A new and large field of thought is all at once presented to immature but eager and critical minds. They are invited, coaxed, encouraged to sit in judgment on the personality, the lives, the writings of men and women possessed of the greatest creative genius. While for the sake of the vitality, enthusiasm, and real progress of the class, such efforts are necessary, it becomes very important, on the other hand, for the wise teacher to enlarge, or modify, or often disprove these crude views, not infrequently presented with a complacent conviction which may have grown out of a half-hour's study." [Mary H. Norris "On Teaching English Literature," *Journal Education*, April 8, 1886.]

We should aim so to teach our pupils to understand, love, and revere the thoughts of the old masters that when the school days are over they will go to these worthies for guidance, instruction, comfort, and wisdom; but the chances of their doing this will be much less, if in school they read the few authors that they do, with their minds upon the minor imperfections rather than upon the nobler qualities of style and thought.

Concerning expression, both oral and written, much has been said among educators; and want of time does not permit me to dwell upon this phase of the subject.

The various ways of getting pupils to grasp the meaning of words, of sentences, of paragraphs, and finally, of a production or a masterpiece as a whole, must be left to each individual teacher to work out in his own way. If the great end be known and the principles leading thereto, it will be as effectually reached by the many different ways of individual teachers as the demonstration of the Pythagorean proposition by its many methods. The end sought constitutes a unity common to all; and the individual ways constitute a diversity which should be, by no means, at variance with the unity. Indeed, they cannot be, if chosen with reference to guiding principles.

Masterpiece Study in Secondary Schools.

SUPT. LEROY HALSEY, BATTLE CREEK.

Very gratifying has been the advance in English work in our public schools during the last few years. This is especially true of the reading of classic authors. In no other line of study has there been of late a more marked improvement than has been noticeable in the use of the masterpieces of our mother tongue. Ten years ago the schools in which anything like adequate training in this department was

attempted were the rare exceptions. Now there are many localities in which full work in this field is carried on and in many schools excellent results are obtained. In some cases as much time as any one could desire is devoted to the study in question. Yet there remains much that should be done. The schools in which large attention is given to this subject are not so numerous as they should be and in many places the best results are not secured. The matter should be discussed and pushed until a reform has been effected in all the schools in the state. It is eminently fitting that provision should be made for a consideration of the very important topic masterpiece study at this first meeting of the Michigan Schoolmasters' Club.

It is not my province to-day to speak concerning the reading of English classics in the grammar school. We have met to discuss secondary instruction, especially in its bearing on collegiate preparation. However, I cannot refrain from saying that, as a preliminary to satisfactory masterpiece work in the high school, there should be in the grammar school careful study of the works of great English authors. The school readers should be retained, but would better be used only half the time in the grades from five to eight inclusive. The rest of the time might better be devoted to reading, in their entirety, some of the longer poems, stories, and essays. It will be found that there is an abundance of books eminently suited for this work in the grammar school grades. A beginning might be made in the fifth grade with Robinson Crusoe, and from this, by easy transition, we may pass on to other writings, forming a course for the four grades We need for this work a carefully and fully edited set of appropriate masterpieces. Such a well-edited series for grammar school study we have not at present. There is, fortunately, ample material, with careful editing, for reading classes in our high schools.

Let us resume our consideration of masterpiece study in the high school. Perhaps I may best illustrate what is possible by mentioning what we are doing at Battle Creek. This is done not with any thought that we have a model course of masterpiece study, for we well know that we have much yet to accomplish along this line, but because some steps have, we think, been taken by us in the right direction and because I desire right here a concrete illustration to point what I shall say. So you will pardon the reference.

In the Battle Creek high school the masterpiece course runs through the four years. In the ninth grade there is a daily lesson in reading English classics, as well as a daily exercise in manuscript work; in the succeeding three grades these two lines of study are carried on in alternation, the exercises of each kind being given every other day. The programme includes in the ninth grade a term's work in Irving's "The Sketch Book;" another in Hawthorne's "Tales of New England," a third in Lowell's "A Moosehead Journal," "A Good Word for Winter," and "My Garden Acquaintance." In the tenth grade a half-year is devoted to Longfellow's "Evangeline" and "The Courtship of Miles Standish"; a half-year to Tennyson's "Idylls of the King." The eleventh grade pupils study for half of the year Macaulay's "Wm. Pitt"; for a half year Webster's "Oration on Adams and Jefferson." The twelfth grade pupils consider Shakespeare's "As You Like It" (or "The Tempest"), "The Merchant of Venice," and "Julius Cæsar," each for a term.

What has been outlined above is the work required of all pupils in all courses. Nothing is here said concerning the course in English authors, running throughout the year, given to the students in the senior class pursuing the English course of study. This senior class work in literature is in addition to the masterpiece study now under discussion. It is so conducted as to give a general view of English literature in its leading works as a preliminary to subsequent reading. In this senior English course, as well as in the masterpiece courses, the works are studied in their entirety.

The statement has sometimes been made that Lowell's essays are too heavy for ninth-grade pupils and that Tennyson's "Idylls of the King" are not best suited for those in the second year of the high school course We have not found this to be the case. Pupils have been as much interested in these works as

they could be in the simplest essay or poem. The impression that children will not be attracted by the writings of the great authors is entirely erroneous. An average high school student, if he be allowed a fair chance, will read with great pleasure, as well as profit, the plays of Shakespeare and the "Paradise Lost" of Milton. Our experience at Battle Creek has been that our masterpiece courses are among the most popular lines of study. Certainly in profit they yield to no others.

The method of procedure in our classes may appropriately be given. The aim is to secure a thorough acquaintance with the poem or essay in hand. Care is exercised that the thought of the author be grasped; that the beauty or strength of expression be realized; that the principles of style be comprehended. The history of the masterpieces is studied, the references and allusions are traced out. In connection with his work, the life of the author and the circumstances determining his career and writings are fully considered. This work is carried on by class reading exercises; by oral, manuscript, and blackboard topical discussion; in paraphrase, definition, explanation, and original expression of views. In connection with this, in the oral reading lessons, attention is given to elocution, with a view to bringing about the proper use of the vocal organs and the proper rendering of the pieces read.

This would seem to have some of the elements of proper work and should lead to some appreciable intellectual development and literary training. So it does. The study of English classics, if properly conducted, will always give a large return, not only in the cultivation of literary taste and development of the reading habit, but also, by reflex action, in rendering more efficient the study of all the branches in the curriculum. I am sure that all teachers who have attempted such work as that outlined above will bear me out in the statement that thorough study of the English classics will show its wholesome effect in all the work of the school. There is, by reason of it, increased quickness of perception, firmness of mental grasp, definiteness of comprehension, elevation of taste. Indeed, this must be the case whenever a pupil is brought into contact with a great or good mind speaking from the printed page. The course that has been described gives to the pupils a fair degree of familiarity with eight authors and (I speak from knowledge) cultivates a desire for farther reading along the same and other lines.

In most of our high school programmes of work we find that for pupils in certain courses there is a term or half-year or year of work labeled literature. This study, as formerly conducted, was the history of literature, pure and simple. The pupil was expected to learn the facts connected with the life of an author and the list of his writings, with a dreary multitude of dates. This was done by a pure stretch of memory. The names had very little, if any, meaning. The knowledge thus gained was almost valueless while it was retained and it soon slipped from the mind. If anything was attempted in the way of study of writings, it was nothing more than a course of monotonous reading of disconnected fragments, with little explanation and no written work to enforce what was gained from the reading. Under such a system no clear impressions on literary subjects could be received. It is not strange that this school study of literature, falsely so called, grew wearisome and fell into disrepute. Fortunately the state of affairs just indicated is, in large measure, a thing of the past. More time is now devoted to the subject and a more fitting method is followed. The study of the text-book is subordinated to the careful reading of the masterpieces themselves. The lives of the authors and the literary and political history of the times are introduced as accessory to a direct acquaintance with the great poems and prose writings. The historical study is carried on with the constant use of standard books for reference purposes, and attention is given to the comments of the leading literary critics.

Certain it is that during the last ten years there has been vast improvement in the treatment of this important branch of study. The progress continues and it is one of the most gratifying indications in school work at present. English in its different departments is, in many schools, slowly but surely winning the recognition it deserves, and is taking

a place as an important branch, worthy of equal consideration with arithmetic and geography and Latin. Approved methods are working themselves in more and more. The outlook is promising. Let us foster the growing interest and, to the best of our ability, spread the good work. Then we may be sure we shall get satisfactory results in our school rooms.

Elocution.

H. R. PATTENGILL, LANSING.

For many years the study of the classics has made the student familiar with the fine rhetoric and elegant composition of the old masters in literature. For some reason the student of Greek and of Latin has almost totally neglected that branch of the study which shaped largely the style of the most successful writers of Greece and of Rome. The science and the art of Elocution, for it is both, has fallen into a "desuetude" not by any means "innocuous."

The great question very rightly is "What," but one scarcely second in importance is "How." Longfellow well says, "Of equal honor with him who writes a grand poem is he who reads it grandly."

The scholars of to-day look upon elocution as something given over to cranks, something made up of humbuggery, bombast, pompousness and general incapacity; until it has come to pass, as Sir Arthur Helps so well says, "The man who can *do* a thing well is, unfortunately, often now the last man who can *speak* about it in public well, or even talk about it well."

What has brought about this contempt for or at least this neglect of the art of speaking and reading? You will doubtless and very correctly say, "The art of printing," and we might add a reason quite as potent perhaps, that is, the overdoing by some who have made elocution a bugbear, and have led the thinkers to consider that it is an art designed to make men pompous.

In the few minutes allotted me I shall consider briefly but these two points:

1st. What is elocution?

2nd. Why we should teach it?

1st. What is it?

The audible, distinct, sure and effective pronunciation of words; also appropriate inflections and modulations accompanied by proper gestures, and *when suitable* the accompaniments of the human countenance and figure. The rule given by Demosthenes that the rule of oratory was action, action, action, meant only a proper regard to pronunciation, expression and gesture.

2nd. Why should we teach it?

a Because it is an art that is absolutely essential to a large number of persons in at least two of the learned professions, viz., the law and the ministry, and also because any citizen in this country who has anything worth saying will be called upon at one time or another to say it.

It is not much more than 100 years ago that Bishop Berkley asked if half the learning and talent of England were not wholly lost because elocution was not taught in the schools and colleges.

It grieves me to the quick, as it did Hamlet, to hear a "robustuous perriwig-pated fellow tear a passion to tatters," etc., but it grieves me fully as much to hear the monotonous cadence, drawling hesitation, hacking delivery of preachers, lawyers and teachers, who think matter everything and manner nothing.

The English Churchman in 1861 said, "The laity complain most justly of the bad reading inflicted upon them. The varieties of professional incapacity are numerous; the *mutterer*, who swallows all his final syllables; the *drawler*, who wearies with his tediousness; the *gabbler*, who rushes through the service at express speed; the *preacher*, who mistakes prayers for sermons; the *spouter*, who mouths the prayers with the most painful affectation."

The laity among teachers have as much reason to complain of bad reading, as those who attend our State Teachers' Association can testify. The audiences at such gatherings are often simply insulted by the entire indifference of some of our speakers as to whether they are heard or not. They stand solemnly stiff before us, and with no attempt to be heard they have the sublime impudence to require the audience to sit for a long 40 or

60 minutes and watch the oscillations of the borer's inferior maxillary. The unintentional insult comes from the fact that the speaker has not the slightest idea of the mode in which a speaking voice is formed that will fill the whole area of the hall. Do let us have the science and art of elocution taught to our teachers and pupils.

b Aside from the direct result thus to be derived, there is an indirect and important benefit derived from the study, which we may style the hygienic benefit. It makes healthier pupils. It strengthens the lungs, shapes up the chest and shoulders and is of incalculable benefit to the organs of respiration.

Time will not permit of a further extension of this portion of the discussion, but we do hope that our school authorities, high and low, will earnestly consider this matter.

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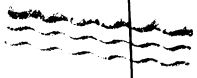

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